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TWENTIETH CENTURY PHILOSOPHY

Living Schools of Thought

Edited by

DAGOBERT D. RUNES

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Preface

In presenting this volume to the student of philosophy I am fully aware of the sheer impossibility of doing justice to the proper presentation of all living schools and movements in philosophy today. I am most grateful to the many thinkers and scholars who have directly contributed to this symposium or permitted their ideas and statements to be represented here.

It is rather difficult to bring together under one cover thinkers and thoughts of such divergent principles, attitudes, and temper. In general, we must admit, philosophers can not pride themselves on being too indulgent with the opinions of those adhering to different schools.

Perhaps because of this we have taken this step of having the representatives of various schools and movements state their case, leaving it to the student to draw his conclusions and find or rectify his position. Perhaps some day we may have cumulative philosophy as we have cumulative sciences. Perhaps. In the meantime it behooves the sincere friends of wisdom to go about their tasks and teachings with the tolerance which is the grace of true scholarship.

The Editor

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ETHICS

By James H. Tufts

ETHICS

By James H. Tufts

WHETHER OR NOT ethics can properly claim to be a science it is well to note the main facts with which ethics has to do. Ethical theories are framed to help us to understand moral facts; they seek to discover principles implied in moral life and moral action; in the phrase of Socrates, to "examine" life. Moral facts fall naturally into two main classes: facts in the conduct and inner life of each of us as a responsible person; and facts as to the purposes, standards, and behavior of groups and institutions. In such a sketch as is here permitted there is space for a few typical facts only.

The first fact in the individual's moral life is that we all make claims upon our fellows and respond more or less fully to claims made upon us. Some claims are based upon promises or contracts, as when I borrow a sum of money and promise to repay it, when I perform some service for another and he agrees to pay me wages, or when two persons marry. Some claims, equally binding, are based on relations between persons. A little child as soon as he is born has a claim upon his parents for care. A driver of a motor car must respect the claims of fellow drivers and of pedestrians to safety. Such claims as these are so important that society enforces them by law. Other claims, not so enforced, may yet be recognized in other ways. When a neighbor's house catches fire the claim for friendly help is promptly met by those who wish to be considered good neighbors. Claims of the sick are of primary importance to the physician. Claims of the destitute or hungry or cold are met by the "kind." Generous people may respond to claims from sufferers from fire in a distant city, or from famine in China, or from earthquake in Japan. Some claims may not approve them-

selves upon reflection. But some claims we recognize as right; we say we ought to meet them. We feel responsible to fulfill a trust. We agree that in general we ought to keep our word, to care for our young children, to drive carefully, to be kind and not cruel. Some of our best-recognized claims we call rights. This implies that other persons have duties not to deny us of those claims.

A second moral fact is that we do not simply take whatever comes, nor do we merely try to gratify our wants as they happen to occur. We project in imagination possible ends and consider them. We learn from experience that some activities or objects of desire are less satisfying than we had anticipated, and reflect upon such lessons. We distinguish between goods, and deliberate before choosing. We look for a good that will grow and help us to grow—that we can live with.

A third moral fact is that we and all people praise or blame, admire or dislike, approve or disapprove acts and character. The good soldier, the good judge, the good friend, the good deed are called good, not because of a single intrinsic quality found in them all, but because they are all admired or approved by the "spectator."

Much ethical theory has been written in which only these facts of individual right and duty, moral choice, moral judgments, and moral character are considered. But most of the masters from Plato and Aristotle to Adam Smith, Kant, and Sidgwick have dealt also with the moral problems set by groups and institutions. Whether formed with conscious purpose or from what was a less consciously directed urge, man early found advantage, strength, protection through combining in groups. In such unions new powers came into being, new restraints became necessary, more permanence was given to folkways. Family, kin, warrior band, hunting party, trading community, religious assembly, school, state—each met more adequately some need or opened some new horizon. In each some trait or capacity of moral import has been begotten or further developed. From friendly aid of kin came kindness. From the exchange of trade came weights

and measures to measure fair dealing. The family has been a nursery of affection and sympathy. Religion taught reverence. From the rule and order of government emerged conceptions of law and justice.

It is in institutions that we find man at his best—and at his worst. For power brings its own perils. Yet as governments become oppressive, ideals of freedom and rights come to birth. As armies profit by inventions and increase their power to devastate, the demand for peace gains strength. As wealth is increased through industrial, commercial, and financial organization, and class-conflict is added to the age-old attendant moral dangers, we find a new emphasis upon the need of juster distribution. Out of such challenges to institutional claims or standards much in the great ethical systems has had its origin. At this present hour the issues which clashing institutions present seem by far the more momentous.

We turn now from moral facts to their critical interpretation in ethical theory, chiefly in that of the past two decades. After a preliminary note as to theories of moral origins we consider certain emphases in recent theories of the individual moral life, and then the new problems set by changing institutions.

I

Speculation as to moral origins was rife among the Greeks when Plato wrote, but objective, scientific study of primitive morality is largely a matter of the past century. It received an incentive in the general doctrine of evolution and in the special studies of Darwin. Near the close of the nineteenth century several studies appeared of a higher order than had previously been attempted. Their results were brought together and interpreted by Westermarck, Hobhouse, Wundt, and others. The general reader was likely to be at first impressed by the variance in customs and standards, and their contrasts with those of our present culture and civilization. Differing types of marriage, the institution of blood revenge by kinsfolk, viewed superficially, seemed to argue against the

universality and stability of what had been regarded as moral principles. Maturer judgment emphasizes rather the firmness with which primitive groups hold and enforce what they regard as the right ways, the solemnity of the ceremonials with which the young are instructed and reverence implanted, the effectiveness of kindred control and protection. Among recent writers Malinowski's studies have corrected certain hastily drawn conclusions. Breasted's *Dawn of Conscience* presents the earliest recorded clear emergence of the concepts, Truth, Right, Justice. These concepts developed as standards of a divine judgment and as the order of a wisely ruled kingdom. The scale, the measure of fair exchange, had even four thousand years ago, become the symbol of impartial justice. The individual conscience came to birth in the religious-economic-political matrix. Prophets of Israel, to whom our moral consciousness owes much, were likewise stirred by social wrongs and appealed to a divine standard and authority as support for justice and kindness.

Bergson's *The Two Sources of Morality and Religion* distinguishes, as the two sources of morality, social pressure and the inspiring influence of moral heroes. Social pressure has begotten and maintains those morals which were and are necessary to such basic institutions as family, government, trade, and industry. Such are the sense of duty, so much of good faith as makes mutual exchanges possible, the use of weights and measures, the habits of industry. But from the appeal to the imagination made by moral heroes has come a creative factor, an element not so much of duty as of aspiration. This has pointed toward an ethics of humanity, rather than to an ethics of closed groups; to the ethics of "the open road," rather than to an ethics of tradition and social pressure. The Sermon on the Mount seeks not to give a code of rules but to induce a state of the soul.

Bergson's distinction of a creative factor in the moral life is, I believe, important. And the role of the moral hero or inspiring leader is not to be overlooked in studying the history of moral progress. Yet we do not often find moral heroes rising in isolation from social conflicts. They have more

commonly been stirred to reflection, indignation, protest, and challenge by the clash between group standards and the forces of changing pressures. Creation of the new in morals, as in art, is not a creation out of nothing. When Socrates pleaded persuasively for the "examined life" he joined dramatists and historians in critical and creative response to the social conflicts of his city and his day. The Sermon on the Mount found its setting and its imagery in the long-cherished memory and hope of the Kingdom. The present world-conflict is tending to clarify and emphasize conceptions of freedom, equality, and human dignity, although not through the vision and example of an outstanding moral person of creative insight, but through the discussions and cooperation of many minds.

II

The problems of ethical theory are set by both the classes of moral facts which we have noted. But it is convenient to notice separately the problems in what for convenience we call individual ethics, and those problems which arise conspicuously from the existence and activities of groups and institutions. And within the field of individual ethics, while the great masters have recognized the claims of duty, the importance of discerning and seeking the good, and the worth of virtue and character, emphasis has differed. In the Greece of Socrates and Plato the urgent need might well be wisdom to distinguish true good. For Kant, inheriting the Christian reverence for divine law and the worth of the individual soul, living in the "age of reason" and learning both from Newton and from Rousseau, the problems of a rational ground for the moral law and for the dignity, worth, and responsibility of persons as members of humanity were foremost. The brilliant discoveries of Newton might well tempt Hume "to introduce the experimental method of reasoning into Moral Subjects," and a Bentham to reject all intuitive standards in favor of the simpler mathematical rule of the greatest happiness of the greatest number. It is not surprising that the extraordinary discoveries of physical science at

the present time and its success in furnishing the engineer with tools for increasing human welfare give rise to a demand not infrequently expressed for a "science of ethics." What would a science of ethics mean? What could it be expected to do for the individual or for society?

If by science is meant such a method as that of the physical sciences which analyze structures and motions into simpler elements, capable of exact measurement, most students of moral problems would agree that such analysis does not give adequate understanding of moral conduct. Statistics may and do give a basis for calculating approximately the rates of suicide, marriage, divorce, crime, attendance at school or college, adherence to political parties, and even the state of public opinion. Natural and social sciences provide information which is important for intelligent deliberation. But "general propositions do not decide concrete cases." Suicide statistics cannot answer Hamlet's personal question. Statistics of divorce cannot relieve the wife and mother of the responsibility of making her own decision as to her own course. The artist must know his colors, but he cannot create a great picture by rule. A good life is likewise a creation, a work of art as well as of knowledge.And although it is important to know as fully as possible all the conditions and consequences of a course of action, this knowledge does not automatically eliminate the necessity of choosing—if the process is really a moral act. Nevertheless, if by scientific method we understand a study of relevant facts, an effort to discover their relations and to organize them under appropriate principles, ethical theory may claim to be scientific in spirit. It would not be scientific if it were to seek simplicity at the expense of fidelity to the distinctive character of moral facts.

The main foundations of ethical theory have been laid by the masters and it is not appropriate to review them here. Instead we shall notice three characteristic trends in recent discussion which may be regarded as indications of scientific influence in the broader sense of the term. These are (1) A more adequate interpretation of the facts of duty based on

the social nature of man; (2) Recognition of the creative factor in mind; (3) Insistence upon the distinctive character of moral concepts or categories.

(1) Older treatments of the facts of duty and obligation showed the influence of Hebrew religion which regarded all duties as divine commandments, and of Roman law which was the voice of the State. The further fact that children are —or were—taught obedience to parents and teachers seemed a re-enforcement of the religious and legal conceptions of duty as deriving from authority. Paley stated it clearly: "Obligation is a violent motive, resulting from the command of another." Butler, indeed, made the authority that of conscience, and Kant assigned it to reason, but the association with authority remained. Restive spirits, resentful of authority, sometimes propose to discard the conception of duty as well. Recent writers, however, tend rather to give clearer recognition to the facts of obligation, while basing obligation upon human relations. Dewey points to the significant fact that while children are taught that they ought to obey parents, parents equally are under obligation to their children. The State may recognize and enforce, but does not create these mutual obligations. Ross emphasizes the obligations to fulfill promises as "*prima facie* obligations." It is of interest also to note that Dean Pound has shown the tendency of law to increase the list of obligations based on status or relations. Fite, who connects the notion of duty with that of authority and on that account regards it as not belonging properly in an intelligent attitude toward life, none the less says that the essence of morality is responsibility and that a moral society is one in which each has regard for the rights of others. Intelligence which Fite takes as the most important aspect of the moral attitude, is seen at its best when we understand persons, as in the relations of mutual friendship. To which we might add with Dewey, that friendship, though at the farthest remove from authority, has none the less its claims. The good citizen does not need the authority of the State as "a violent motive" to respect the rights of fellow citizens, however necessary it may be in our complex society that the

State clothe the traffic officer with authority to direct the traffic.

(2) The creative activity involved in the moral life, as in all life, is more fully recognized. This is seen in views of what we prize as good and in theories as to the origins of ideals. The stirring words of William James on what makes life worth living, the similar words of the great legal philosopher, the late Justice Holmes, and very recently an eloquent statement by our Nobel Prize woman, Pearl Buck, alike emphasize as the good in life the full exercise of our powers which implies struggle and growth, sometimes against opposing forces from without or within. And the common man during the depression has probably suffered more from the inability to do something, to be active, than from the privations he may have endured. The quickened life of universities in our time has evidenced the creative interest in fields of scientific discovery. Bergson gave a cosmic scope to the view in his *Creative Evolution,* and theories of "emergence" reflect a similiar attitude.

Whether or not this general appraisal of the active, constructive values of life is responsible for certain tendencies in ethical theory may be uncertain. But it is at least possible that it may have had an influence. Two examples may be suggested, the disappearance of an older intuitionism and the similar—almost complete—disappearance of hedonism from the field.

Intuitionism sought to account for the ability to discern right and duty or to become possessed of ideals of good by endowing man with a special faculty of intuition. For both right and ideal good seemed to transcend ordinary experience of what is, and to imply a "seeing" of what is not, but ought to be. Moses received his perfect law upon the Mount. The pattern of Plato's City was laid up in heaven. But this supposed need of a special faculty of intuition failed to take into account, on the one side, of the intimate and deeply-rooted moral texture of human experience and social relationships as disclosed more fully by recent anthropology, and on the other, of the creative activity of mind. Such ac-

tivity is shown in the scientist's concepts, the engineer's patterns, the artist's construction. It is present not only in a Micah's insight into moral fundamentals, in the Sermon on the Mount, or St. Paul's great Thirteenth Chapter, but as genuinely in the sensitive spirit of the common man or woman, confronting a moral situation, and seeking to know the right and achieve the good.

Hedonism too has almost disappeared from ethical theory. In contract with an idealism which placed its good in a pattern beheld in intuition the empiricist fixed on pleasure as the good which all experience. In its extreme form hedonism saw no difference between pleasures except that of quantity, and held that the only moral question is how to get the most pleasure. In its more generous form of universal hedonism it made the moral criterion, not the individual's own pleasure but the pleasure of mankind as measured on a general view, and endowed man with generous sentiments and benevolent impulses. Sharp has recently presented the universal hedonism of Hume with additional stress upon the aesthetic factor in our admiration of fine character and brave deeds. Ross and Paton remark that they do not discuss hedonism since it has disappeared. Broad adds as a sort of parting shot the criticism that in at least one instance of pleasure, the pleasure felt in malice, pleasure is not merely not good; it is positively bad; and the greater the pleasure the worse it is. All agree that pleasure is in general *a* good. But most would count intelligence, and knowledge, and true opinion as also goods. And it seems a mistake to abstract the feeling side of activity and of living to locate in it alone what we prize and value as either actors or spectators of life's drama. For feeling which is common to all our doing and experiencing seems least distinctive of what is peculiarly thought of as object of aspiration or of admiration. There is pleasure in full use of our powers, in high achievement, in generous help to another, as there is also in eating and resting. It may be regarded in many cases as a sort of reward for difficult effort. Yet not only great artists, scientists, or statesmen but common folk would in most cases place the creating or the work as

more important than the reward. In actual living the activity and the joy go together. But it is in the activity rather than in the accompanying pleasure that we mark degrees of excellence, or kinds of good.

(3) Recent ethical theory recognizes more clearly the propriety of interpreting moral problems and moral conduct in its own distinctive terms—its own categories. Earlier theories frequently attempted to explain moral facts by some concept taken from theology, metaphysics, physics, biology, or psychology. To explain moral facts in terms of God, or reality, or force, or survival, or pleasure-pain may be a simplification, but it is hardly ethics. Right, duty, good are not—for ethics—to be resolved into something else that is not a moral term. Man is doubtless subject to gravity, to heredity, environment, pleasure-pain, and whatever "drives" the psychologist may identify. But in saying, "I ought" or holding others responsible, in reflecting upon what he will choose to seek as his chief end, in judging the conduct of others, he is acting and living in a moral universe of life and of discourse.

Emphasis upon the distinctive character of moral terms was given particular attention by G. E. Moore in his *Principia Ethica.* By insisting that "good" means just good, and not any metaphysical or natural object, he defined more clearly for ethics its distinctive field and method. It was not to be an annex to metaphysics, biology, or psychology. More recent British writers, notably Ross, have considered an analogous distinction within the ethical field, and have maintained the independent place of the conception of "right", and in America Dewey has taken a similar position. In the attempt to make the principles of morality appear as reasonable as possible, Utilitarianism sought to identify right conduct with conduct productive of greatest good. This identification had been earlier disputed but is now more conclusively denied. It is probable that the two conceptions originated independently—right, as in Egypt, in a pattern of divine and political order; good, as in Greece, in reflection upon individual ends and ambitions. At any rate, they now have different roots. When

we face a moral situation, Ross asserts, what we see first is the existence of component suitabilities or responsibilities or claims or *prima facie* obligations—whichever language we prefer. Right, says Dewey, "introduces an element which is quite outside that of good—that of exaction, demand." To afford a justification for these claims by children, parents, friends, fellow citizens, it is not necessary to subordinate them to what is held good. They are abundantly justified by the social relations of interdependence which are fundamental in human life.

This distinctive *meaning* of right does not deny that in many or even in most cases the right act will also be the act productive of greatest good. It asserts rather that right is not to be regarded merely as a means of good. "It is certainly *desirable,*" Dewey remarks, "that acts which are deemed right should in fact be contributary to good." But if we reject the independent claims—"just claims"—of our fellows on the ground that such rejection will in the end produce greater good we are certainly on dangerous ground. It is at least arguable that the death of Socrates produced more good in promoting reflection upon the importance of free inquiry than would have resulted from his acquittal. Would this have justified a juror, who believed Socrates innocent, in voting for his condemnation? Assuming, for the sake of the argument, that the proposed reorganization of Europe under German hegemony will produce much good, does this justify forcible aggression upon smaller nations? To separate ends from means has often been a sophistical justification for cruel or unjust acts. Against such separation, when it overrides the claims of human beings, Kan't principle that men are to be treated as ends, never as means only, still holds.

As a concluding note on these recent aspects of ethical theory I quote from Dewey a statement with which I heartily concur: "Moral conceptions and processes grow out of the very conditions of human life . . . The fundamental conceptions of morals are, therefore, neither arbitrary nor artificial . . . Particular aspects of morals are transient; they are often, in their actual manifestation, defective and perverted. But

the framework of moral conceptions is as permanent as human life itself."

III

Instead of glancing separately at problems of political, economic, family, and other institutional ethics it seems more appropriate in this limited sketch to fix attention upon certain basic claims and values which have emerged to clearer expression and firmer assertion during recent years in all or nearly all these forms of social, organized life. During what we call modern civilization, and with increased emphasis since the revolutions, political and industrial, in the closing eighteenth and beginning nineteenth centuries, four such claims and values have not only been upheld by individuals but established or supported by institutions. These are freedom, welfare, equality as recognition of human dignity and measure of justice, and peace. Freedom may have been asserted most vigorously in the political field, welfare promoted most effectively by scientific and economic advance, justice and peace extended by reformers working in part independently, yet all four have found general acceptance in human relations.

(1) Freedom. Two senses of freedom must be distinguished: freedom from control by another, and freedom as ability or power to know or to do, which may be called "effective freedom." Freedom in the first sense, freedom from control by absolute or arbitrary power of government or by lords and masters in slavery or serfdom has made great advance. The struggles for civil and religious liberty cost blood, but such liberty at last gained recognition as a "right." It was to be protected by the courts. It was embodied for citizens of the United States in the Bill of Rights of the Constitution. It was extended to those previously slaves by the Thirteenth Amendment. Rights of married women over property were among the later stages of progress. Political liberty, or the right of self-government by a national group, was more difficult to define and to guarantee. But a notable attempt was made to establish self-determination in the provisions of the

peace following the World War. Democracy, in the sense of government of, for and by the people, is in many respects an ideal to work toward rather than an accomplished reality. It is probably the most difficult form of government, as Bergson has said. But the democracies which have been longest established are the most secure and the most determined to remain free.

It has often been noted that Adam Smith's *Wealth of Nations* appeared in the same year as the American Declaration of Independence. Smith advocated policies of economic freedom. The general theory of the economic system usually called capitalism, however its actual operation may fall short, is that of freedom. That is, freedom of the consumer to buy what he chooses, where he chooses, of whom he chooses, and at such price as he may agree upon with the seller; freedom of the dealer to sell where he will, and at a price that he may agree upon with the buyer; freedom of an employer to hire whom he will, and of the worker to work for whom he will, at wages agreed upon. Under these policies a middle class, already a defender of civil and religious liberty, grew stronger. But new forces set in motion by science, invention, and organization began to interfere with freedom—not with freedom in the first sense of the word, but with effective freedom of buyers, sellers, employers, and workmen. For under a system of freedom in the first sense the strong and able acquire wealth which is also a source of both power and effective freedom in buying and selling, whereas poverty means disadvantage, less effective freedom in buying or selling goods or services. Competition was relied upon to prevent abuse of freedom by economic power, but under modern conditions and methods of organization it has been found that competition can be used to crush competition and destroy freedom. It has been necessary for government to regulate the power of organized wealth in order to protect freedom. Such regulation is not to abandon the principle of freedom; it is rather to make freedom possible for all, not for the strong only.

The family down to comparatively recent time, both in

Europe and America, shared the attitudes of subordination to a head, tempered in most families by affection, which prevailed in relations to government. It has shared likewise in emancipation. Education has seen similar change. And in recent years we have come to prize increasingly freedom of scientific inquiry, free discussion, freedom of access to news and information, as essential not only to knowledge of nature and of fellow men, but also to our way of life. New agencies for the maintenance of both freedom from control and of effective freedom have been discovered or invented. To the printing press have been added the telegraph and telephone, and perhaps most significant of all in its capacity to bring the world's thinking and doing in vivid presence before us, the radio. General education, secret ballot, are other agencies of protection.

In most cases when freedom has been denied or restricted by some external power, that power has been an organized institution. The state or the hierachy were older wielders of oppressive power; the corporation and labor union are today frequently cited as similar offenders. The contest for freedom has therefore seemed to some to be that of the individual against organized government, organized capital, organized labor, organized religion, even organized education. But to seek freedom by rejecting all organization is to forget effective freedom. For effective freedom implies power—power over nature, power over one's own body and mind, power dependent upon the union or co-operation of men to produce and distribute the goods of civilization. Freedom to operate and enjoy a motor car or even to live in a city or eat an ordinary breakfast depends upon organized production and distribution. Full intellectual freedom requires some control over resources, tools, libraries and laboratories, such as public funds or endowed universities provide. More striking, perhaps, is the necessity of organization to make effective resistance to oppressive power. Armies of the Commonwealth stood back of parliamentary resistance to royal prerogative. Only by union could the colonies resist the forces of George

III. It is by ruthless suppression of all other organization that modern tyrannies destroy all freedom.

(2) Welfare. Welfare may not kindle the imagination or, as does freedom, inspire to heroic deeds, but it is none the less a basic value which has been eagerly sought and increasingly enjoyed. It is homely, every-day good, to be shared with family and friends; it is also a means to the enlargement of life's opportunities. The "pursuit of happiness" was set by our Founding Fathers side by side with life and liberty as an "inalienable right." The Utilitarian school of reformers fixed upon welfare or happiness as both the actual aim of all and the end for which all should strive. The enormous advances in control over natural resources and forces which science, invention, and organization have placed at our disposal have greatly increased general welfare and raised the standard of living. Medical science has aided in lengthening life and lessening pain. The economist, Joshua Stamp, computed that the goods and comforts available for the ordinary man had been increased four times by the industrial revolution. The working day for factory workers has been cut nearly in half. Education is opening doors previously closed to the great majority. Economic advance has made possible not only individual enjoyment but also generous provision for community needs, for friendly and even international help for sufferers from famine, fire, and flood. We need not claim welfare as the only good, but it has certainly a valid claim to be reckoned as one of the goods.

(3) Equality, as recognition of human dignity and as measure of justice. Justice was one of the earliest moral concepts to emerge clearly in relations between man and man. And equality as a measure or standard, at first perhaps in fair exchanges, then early taken over in the symbol of the scales to fields of law, has gained firmer place as human dignity has received fuller recognition. Cicero and Seneca argued for the essential equality of mankind, since all share in reason. The Roman jurist Ulpian declared that by natural, as distinguished from civil law, all men are equal. Christianity af-

firmed that with God there is no respect of persons. Nevertheless ruling classes were sharply divided in power and privilege from common folk. Serfdom and slavery continued almost to our day. The rise of a middle class blurred the sharp lines separating nobility or gentry from peasant or laborer. Settlers in the New World were either already from this class or soon entered it by becoming land owners. The way was prepared for a new nation "dedicated to the proposition that all men are created equal." It should not be necessary to repeat that the Fathers did not suppose all men equal in ability. They had common sense. They chose Washington to lead their armies, Jefferson to write their Declaration, Franklin to represent them in France. But they denied the right of any man or class by virtue of birth to rule over others without their consent, or to deprive them of fundamental rights. The French Revolution's motto placed equality by the side of liberty. Within the United States equality in the suffrage has steadily advanced. The Fifteenth Amendment has been followed by the Nineteenth, removing restrictions of race and sex.

Economic forces have increased both equality and inequality. The great discoveries and inventions have in certain respects served all people of the Western World. All use the mails. Millions read the daily newspaper, listen to the radio, see moving pictures. Nearly every family in the United States owns a motor car. City dwellers, even in the crowded sections, would think it intolerable to live under the conditions as to water-supply, warmth, toilet facilities, clothing-fabrication, and recreation that were the lot of the well-to-do at the birth of the Republic. On the other hand, these same discoveries and inventions, combined with the enormous increases in production due to organization in industry, trade, and finance, have made possible extremes in consuming power. More important, wealth is itself a power as real as that of government. It is in one respect more dangerous to liberty and equality than political power, in that history has taught men to be on their guard against the older power of government, but not so clearly to fear the more recent power of

corporate wealth. Enemies of democracy have charged that democracies are plutocracies. But in the United States where increase of corporate wealth has been most spectacular the people through courts, legislatures, and commissions have moved steadily toward restraining the power of wealth. Income and inheritance taxes check its accumulation and transmission. The police power, the Sherman Act, the Pure Food Act, the Wagner Act, and many measures of State governments restrain inequality in their exercise when they serve public purposes, or forbid unfair practices in dealing with the public or with labor. A problem doubless exists, in that the very freedom which we prize leads to inequality. As the Federal Supreme Court has declared, freedom of contract and the right of private property necessarily result in inequality. But as will be clearer when we have considered social systems other than democracy we have been wise not to sacrifice freedom entirely to gain equality. It has proved safer in this world of men and women to keep separate the powers of government and of organized wealth which certain other systems merge.

In the family, and in opportunity for education, equality has made conspicuous gains. Legal disabilities of women have been removed; doors of economic opportunity have been opened to them; the right of suffrage has added to their dignity and responsibility; the extremely large families which were a serious burden upon the time and strength of the mother have almost disappeared. Women in the United States are estimated to own more than half of the wealth. In education a steady increase in equipment and facilities in both public and privately endowed or supported institutions has been matched by increasing attendance. Our great educational provision is probably our most important witness to our faith in equality of opportunity, our respect for the human person.

Two great ethical systems of the modern age have emphasized equality. Utilitarianism in its doctrine of greatest happiness of the greatest number included as its rule for distri-

bution, "Every man to count as one." Kant voiced not only the spirit of his day but of a high moral ideal of human worth and dignity in his maxim, "Treat humanity, whether in thine own person or in that of another, always as end, never as means only."

(4) Peace. It may seem absurd to say that modern civilization has set peace as a moral value beside freedom, welfare, and equality. Wars have followed wars. Even the United States in its short history since Independence has fought four foreign wars and is now in its fifth besides the war between the States. Nevertheless the temper of this nation has grown increasingly non-military. A soldier had become almost an unknown figure prior to the World War, and few returned officers from that war kept their titles in civil life. Britain too, in the long Victorian reigns had seen science and letters flourish, standards of living rise, international contacts through commerce, travel, learned societies, and new agencies of communication multiply. Even Bismarck, who had fought three wars to build a strong Germany under the primacy of Prussia, set himself against further conquest. The devastation wrought by the World War intensified in both Britain and America the horror of war and desire for lasting peace. The wise had long known that wars secure no economic gain for victors. It was now felt more deeply that a loss of a generation of brave young men was a loss that no reparations could make good. Modern methods of total war which entail almost indiscriminate slaughter of all ages and sexes intensify war's brutality and so the abhorrence with which war is regarded by the humane. Yes, the peoples of the civilized world prize peace. If they must fight, it is to preserve a value which they prize even higher, and because they believe that lasting peace depends on freedom and justice for all.

Until the World War civilized mankind had deemed the four values—Freedom, Welfare, Equality in rights, Peace—as secure in principle and on their way to greater fulfillment. Now, they are challenged in part or wholly by the two systems of Communism and National-socialism.

Communism approves welfare, although it has increased welfare little, if at all, among its people. It claims far greater equality than exists under free enterprise with private property. The Soviet Union had until recently maintained peaceful relations with most of its neighbors, but its assault upon Finland, participation in occupation of Poland, and absorption of three Baltic states, classed it with agressor nations. And internally, class war and revolution as contrasted with gradual and peaceful reform, are cardinal doctrines. It is in its almost complete rejection of freedom as a human right or value that Communism presents the strongest contrast to the democracies. It does not grant in its courts those safeguards of civil liberty which English-speaking peoples consider priceless. It governs, not through a free and general election of responsible representatives, but through a self-selected and self-perpetuating Communist party. It permits little or no freedom of inquiry, discussion, or access to such news or opinion as is at variance with the "party line." It rejects absolutely economic freedom as both wrong in motive and bad in results.

Communism justifies control by a self-perpetuating, selective party and its use of secret police on the ground that it must at all hazards guard against enemies. It justifies its limitation of free inquiry and rigid insistence on the "party line" on the ground that Marx and Lenin have presented absolute truth which renders other views obsolete. It regards class war and revolution as, on the one hand, a necessary phase in the dialectic process of historical evolution, but on the other as a sort of holy crusade against the "bourgeoisie" or middle class which must be exterminated or at best subordinated under the dictatorship of the proletariat. When this removal of the opposition has been completed and force is no longer needed the State may wither.

Communism's rejection of economic freedom is more definitely on moral grounds; capitalism's motive is wrong, its results are evil. The profit-motive, Communism claims, as contrasted with the desire to receive some equivalent for work done in creating value, means a desire to get something

for nothing. It is worse, for under modern conditions of machine industry it means exploitation of those employed who are entitled to the product of their labor. Banish the profit-motive, Communism holds, substitute a desire for the public good, and both crimes and wars will fade, since they are due principally to greed for gain. Further, the results of economic freedom as it actually works out in capitalism are claimed by Communists to be that such freedom means freedom of the strong, or of the inheritors of privilege, or of the greedy, to take advantage of the weak, or less privileged, or less avaricious, and thus deny these individuals real, effective freedom. For to be really free to sit at the table which capitalism spreads one must have the price of admission; to be free to make a fair bargain one must have a good degree of bargaining power.

Is the profit-motive an unworthy or positively wrong motive? If it is allowed to become so dominant as to smother or exclude regard for fair dealing, for kindness, for appreciation of knowledge and beauty, or for the general good, decidedly Yes! From the time of Plato and the Hebrew prophets it has been recognized as a powerful "drive" of human nature which ought not to be permitted to dominate to the neglect or exclusion of other goods than economic gain or of the claims of fellow men. In so far as it is the desire to receive a return for some useful activity, whether of producing, or distributing, or adventuring, or discovering, or inventing, it does not differ ethically from a wage or salary. Profit may be in excess of the service rendered; so, too, may a wage or a salary. Or, again, it may be inadequate. But the main incentive in the enterprises by which some of the huge fortunes have been amassed has not been pecuniary profit. It has been either the desire to create and develop an industry or a business, or the desire for power and the fascination found in its exercise. And these motives may be as active under Communism as under economic freedom. The difference is that in a democratic society with economic freedom the power-motive in the economic field may be regulated by government, and government in turn be checked or influenced by independent

groups, whereas in a totalitarian society the power-motive in government has no check from an independent source of power. It is unchecked power that offers the great danger to freedom.

As regards results, it is probable that some crimes against property may be decreased under Communism. But a new source of crime has appeared. "Counter-revolutionary spirit" is a terrible charge which may be stretched to cover many kinds of action or lack of action. By a recent law defective industrial production or production of goods below standard is regarded as "wrecking" and is liable to severe punishment. Strikes are treason. And the assault by the Soviet Union upon Finland showed that the economic motive is not the sole cause of war. The believer in democracy holds that under freedom it is possible to secure juster distribution of wealth than has yet been attained, but does not admit that class war is the right method for that purpose. He believes that free enterprise has been highly successful in production and that we do not need to abolish freedom in order to regulate distribution.

National-socialism is a more radical challenge than Communism to the four values generally accepted by modern civilization. It is also far more efficient. It is not easy to state its ethics correctly without taking into account, on the one hand its course of action, on the other its doctrine of propaganda according to which words are used, not to state objective truth, but to induce a certain belief or opinion. But its central ideas as stated in *Mein Kampf* and in the writings of Rosenberg and Haushofer are simple. It emphasizes the claim of freedom for the German nation, but rejects it for other nations. It rejects welfare as an unworthy ideal for a heroic nation, and substitutes power and mastery. It rejects absolutely and with abhorrence the principle of equality as an abomination conceived by the French Revolution. It professes a desire for peace—under the supremacy of Germany.

Positively, the central idea is that of the pre-eminence of the "Aryan" or Nordic race, and within that race of the Ger-

man nation. Its pre-eminence gave and gives it the right to rule. *Mein Kampf* states the case thus:

> It was then no accident that the first cultures arose where the Aryan, meeting with lower peoples, subjugated them and made them subject to his will. They (Aryans) were then the first technical instrument in the service of a dawning culture.
>
> Therewith the way was clearly prescribed which the Aryan had to go. As conquerer he subjected inferior peoples and then regulated their practical activity under his command, according to his will, and for his ends. But while he was thus bringing them to a useful, if hard activity he not only spared the life of those who were subjected but gave them perhaps even a lot that was better than their earlier, so-called "freedom."[1]

"The way that the Aryan had to go!" This superiority gives the right to rule the world, and to rule not only "practical activity" but minds. Such rule is invested by Rosenberg with a religious halo. "To rule the world there must be (1) the will to mastery, domination; (2) a spiritual principle, a philosophical or religious world-mission thought, the will to world-mastery of mind and soul."

A second idea which has been an effective appeal to German patriotic feeling is that of *Lebensraum*—living space. A strong and virile nation should increase, not decline or remain stationary in numbers. Hence it must have room in which to live and grow. Weak or "inferior" nations have no right to such living space.

Correlated with the doctrine of Aryan or German superiority is the doctrine of racial purity. All racial interbreeding results in degeneracy and has been the primary cause of decline in national power and culture. In particular, the Jews are to be regarded as at the opposite pole from the position of the Aryan and as responsible for Germany's past ills. They must therefore be removed from all places of influence and segregated. They may be deprived of their property. Intermarriage with Jews disqualifies from university posts. Other non-German peoples, although not so bitterly hated, are

yet "inferior" and may properly be made to serve German welfare, power, and culture.

The principle that the business of the strong and competent is to command, that of others to obey, applies also to the form of government within the nation. The superior have the right to rule. And within this class of the elite one individual must make the decisions. A parliament may give counsel, but the head or *Fuehrer* must decide.

Such an ordering and concentration of authority and direction is enormously efficient. It has become familiar in the industrial and business world. What makes it a different matter in government is that it is there supported by force and terror. The military machine, the ordinary and secret police are its agents. All economic processes are under its close control. There is no right of the employer to hire as he pleases or discharge as he pleases; there is no right of the workman to strike or leave employment. All agencies of news, communication, and education are employed and directed for its purposes. It is a totalitarian state with an absolute dictator at its head. Its right is the right of the stronger. Its freedom is that of the elite. Its control is the more complete because it is exerted not merely through terror, but more subtly through propaganda, and education of the young. Croce well says, this "nationalization of the soul is the most terrible." It will probably be able to enforce its will indefinitely over subject peoples by keeping the engines of modern warfare entirely within its own hands. Bombing planes can reduce recalcitrant cities to ashes in a day. It can strengthen its grip by denying higher and technical education to "inferior" nations or races. It has already closed universities among Poles, Czechs, and Dutch. And even German universities which had held high the standard of freedom of inquiry must now shape their investigations and conclusions in the interests of the state.

As to peace, the promise is offered by Rosenberg[1] in phrases taken from *Mein Kampf*[2]: "A new peace shall make Germany mistress of the globe. A peace not hanging on the palm-fronds of pacifist women, but established by the victorious sword of a master race that takes over the world in the

service of a higher civilization." One is reminded of the grim phrase of the Russian general, "Peace reigns in Warsaw." Such, we are to understand, is to be the "new order" to replace divided Europe. However, to reassure his own people in terms of a more familiar morality, the German leader in an address to his troops on the eve of their invasion of Jugo-Slavia and Greece proclaims that they march "with no other ultimate aim than to win freedom for our German people and to secure a living space for the German family!" Just how much land now occupied by other peoples will be necessary for living space is not publicly announced. But German women are urged to raise large families in order that the living space required shall be an expanding, not a fixed amount.

Whether democracies in Europe and the Americas are to be permitted to retain any of the progress gained in freedom, welfare, equality, and peace seems likely to be decided, not by reason but by arms. But in the faith that right makes might we may at least consider what internal policies and course of action will tend to safeguard from destruction not only our way of life but also what we have come to hold as right and good.

As regards our institutions and organizations, how can we be safe from the rise of despotic power? The outstanding lessons from Communism and National-socialism would seem to be the danger of concentration of all power in a single organization as contrasted with such pluralism, or division of power, as is found, for instance, in Scandinavian countries and the United States. Power is a necessary instrument of civilization. The preservation and advancement of moral ideals need the support of collective agencies as do trade, industry, and the administration of justice. But power, either over natural forces or over actions and minds of men is now seen to be, if possible, more dangerous than ever, to freedom and to life itself. History has seen various attempts to resist oppresive power, but effective restraint of power wielded by collective organization has usually been secured

only by the collective strength of some other organization. Both Communism and National-socialism are totalitarian states. They are systems of absolute power. They permit no counter-balancing or restraining agency. No opposition may organize. Secret police are vigilant to prevent even the beginnings of questioning. Neither organized wealth nor organized labor is allowed to influence. No opposition party appears at the polls.

In the free democracies, on the contrary, are numerous collective agencies, not only for manifold educational, philanthropic, recreational, and social purposes, but for representing interests or groups of those who wish to influence or even to oppose government. In the United States there are a Chamber of Commerce, a Manufacturers Association, two Labor Unions, a Farm group, various religious groups, scientific and educational associations. All these inform or shape public opinion, secure or oppose legislation, influence national policies. At times, indeed, it has been charged that organized wealth was writing tariffs or controlling the press, or that organized labor was carrying elections. And at times government has seemed to be unable to act promptly in emergencies because of the numerous checks and balances provided by the cautious Founders. Yet, on the whole, we have both kept our freedom and advanced justice. In the light of what totalitarian governments are doing we may well think that we have built better than we knew in encouraging such a variety of organized groups. Pluralism seems safer than totalitarianism.

Yet pluralism is no sure reliance for maintenance of rights or for ensuring advance in moral ideals or moral standards. It affords agencies through which the spirit may act, but if the spirit is dead or lacking the agencies are dead likewise. The spirit which must preserve moral gains is the same spirit which has won them; it lives only as it grows. Life for institutional as for individual morality must combine stability with change. Reverence for what we hold right, just, and good, must be matched with open-minded sensitiveness to new claims by or for those who hitherto have had small

share in the vast increase in goods provided by science, invention, and mass production. Moral dilemmas are experienced when older morals and institutions fail as yet to meet new situations. Hard resistance to just changes provokes either violence or despair or apathy. Certain forces of the day, notably the power of mass—in industry, in business, in social and political pressure-groups, in subtler forms of propaganda—make for disintegration of older moral structures. Family and religious influence has suffered. On the other hand, in the present century we have made fairly steady progress in protection against disease, ignorance, hunger, industrial accidents, excessive hours of labor in factories, waste of natural resources. We have made provision for old age, have given legal standing to collective bargaining, and have recognized the plight of the farmer caught between low prices for his products and high prices for what he must buy. We have not yet learned how to prevent business depressions, but we have at least come to see that the moral injury of prolonged unemployment for workmen and of closed opportunity for youth is a more serious and difficult problem than that of bodily hunger. It is hard to believe that the enormous advances in means of communication through transport, electricity, and radio will not ultimately lower older barriers between peoples and make for better international understanding.

But there is no prospect of Utopia, either for individuals or for peoples. Moral life will continue to need alertness, courage, faith in the good cause, and at times sacrifice. A new invention like the airplane may place at the disposal of ruthless force a terrible weapon; a new idea like that of *Lebensraum* may touch off with explosive violence a new train; an economics of force may change the problem of just distribution. What we may hope for, if the present threat to all our rights and values can be met, is the opportunity to work out further the promise of free American life.

1. *Mein Kampf,* 70th ed. 1933, pp. 323-4.
2. Quoted by Munk, *Economics of Force,* p. 24.

SELECTED BIBLIOGRAPHY

Bergson, Henri: The Two Sources of Morality and Religion, 1932
Breasted, James: The Dawn of Conscience, 1935
Buck, Pearl: They Who Are Not Yet Born, Good Housekeeping, Dec., 1940
Broad, C. D.: Five Types of Ethical Theory, 1930
Chamberlin, W. H.: Russia's Iron Age, 1934
Chamberlin, W. H.: Collectivism a False Utopia, 1937
Dewey, John, and Tufts, J. H.: Ethics (Revised ed.), 1932
Fite, Warner: Moral Philosophy, 1925
Hitler, A.: Mein Kampf, 70ste Aufl. 1933
Kroeber, A. L.: Anthropology, 1935
Linton, Ralph: The Study of Man, 1936
Moore, G. E.: Principia Ethica, 1922
Paton, H. J.: The Good Will, 1927
Rauschning: Revolution des Nihilismus, 1938
Rosenberg, Alfred: Blut und Ehre, 1933
Ross, W. D.: The Right and the Good, 1930
Ross, W. D.: Foundations of Ethics, 1939
Sharp, F. C.: Ethics, 1928
Tufts, J. H.: America s Social Morality, 1933
Utley, Freda: The Great Russian Illusion, Atlantic Monthly, April, 1941
Webb, Sidney and Beatrice: Soviet Communism, A New Civilization, 1936

AESTHETICS

By DeWitt H. Parker

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The purpose of aesthetics, or the philosophy of art, is to discover the generic characteristics of fine or beautiful art, and to determine the relation of art to other phases of culture, such as science, industry, morality, philosophy and religion. Understood in this way, aesthetics is sharply distinguished from the historical study of art, which is concerned, not with the essence of art, but with the filiation and development of styles and schools. Sometimes the scope of aesthetics is broadened to include the beautiful in nature and human life, but when this is done, it tends to lose definiteness of content, owing to the subjectivity of beauty in these fields; and, at all events, the preëminence of art as an embodiment of beauty is generally recognized. The term 'aesthetics' was first used with its present meaning by Alexander Gottlieb Baumgarten in 1735, in his treatise *Meditationes philosophicae de nonnullis ad poema pertinentibus,* and later, in 1750, as the title of a book, *Aesthetica;* being derived from the Greek word aistheta, which means objects of sensuous as opposed to intellectual knowledge. The subject has been pursued chiefly by philosophers, but some of the most important insights have been contributed by poets and artists, such as Shelley, Goethe and Schiller, who have reflected on their own experience of creation and appreciation.

Two disciplines closely related to aesthetics in content and history are the psychology of art and criticism. The former, originating in the eighteenth century in connexion with British empiricism, is an investigation of the elements, pattern and context of the experience offered by works of art. Since works of art become alive and actual only as they

are experienced, the philosophy and the psychology of art overlap and have often been identified; yet the division of labor between them is clear; for the one is interested in the detailed analysis of the aesthetic experience for its own sake, while the other uses this information only so far as it contributes to a general conception or definition of the nature and purpose of art. For an adequate discussion of the problems and methods of the psychology of art, I would refer to the writings cited in my "Selected Bibliography." Here I would merely note that the study of the process called *Einfuehlung* or empathy — the objectification of feeling and meaning into the colors, lines, shapes, tones, words and the like, which make up the sensuous media or 'surface' of works of art; and the study of the total state of mind during appreciation, yielding such concepts as 'aesthetic distance' and 'aesthetic repose', have been of especial value for aesthetics.[1] Not less important has been the activity of art criticism, including its literary and musical species. Interest in a work of art seldom ends with lonely appreciation, but goes on to conversation with friends or written discussion concerning its comparative merit as judged by some implicit or formulated principle of expectation. Aesthetic judgments, especially those of connoisseurs, constitute, therefore, a material of primary relevance for aesthetics. The critics pass judgments on individual works of art; the aestheticians investigate their nature and validity; and, viewed from this angle, the philosophy of art is essentially a criticism of criticism.

Three general conceptions of art have dominated the history of aesthetics: imitation, imagination, and expression or language. The first was the gift of Plato and Aristotle, and has always found a naive, popular acceptance. It fits best the drama, painting and sculpture, where we seem to have before our eyes an image of visible nature and human action, as in a mirror. The Greeks, however, conceived of it so broadly as to cover even music, the rhythm and harmony of which, they felt, imitates moral character and other states of the soul.[2] But obviously in the practice

of no one of the arts is exact or full imitation either possible or desirable. In order to be useful, therefore, the concept of imitation must be understood in some refined, philosophical sense. Historically, in fact, two chief revisions have been made. The earlier one was already introduced by Aristotle and was accepted by most Renaissance writers, according to whom art seeks to imitate, not all aspects, but only the general aspects of nature. This was significant because it gave to art the value of truth—philosophical, scientific or religious, according to the prevailing theory of reality. The later revision proposed that art imitates only the beautiful aspects of nature. Yet neither of these modifications of the concept of imitation suffices to save it from difficulty, for the universal applicability of each is questionable. There are, to be sure, works of art which express the generic aspects of existence; but there have been whole movements which, by contrast, have tried to express the unique, the momentary, even the pathological. Moreover, some works of art express 'truth', but not all. "Golden lads and girls all must As chimney sweepers come to dust" does so; but "Hark, hark, the lark at heaven's gate sings" utters not truth, but the urgency of passion. And when art does express truth, it never expresses bare truth, but includes its feeling tones for the artist, as in the quotation from *Cymbaline;* never the mere concept, but the 'lure' of the concept. In other words, this reformed concept of imitation neglects the factor of personality, essential to art, and so fails to distinguish art from science. With regard to the beautiful in nature as the object of imitation, we may well ask with Diderot,[3] "What is beautiful nature?" Is it, for example, an Italian landscape à la Poussin, or one such as a Brueghel painted? Is it the same as the noble, the aristocratic, or may it pertain to what is bourgeois, or of the peasant or workingman? If, on the other hand, as some have thought, the beautiful is a mere form or pattern, the artist can freely construct that without looking to nature for a model.

The shortcomings of the concept of imitation were already

recognized in antiquity, most forthrightly perhaps by Philostratus, who asked how, if art be imitation, the sculptor can represent the Gods, whom no man has seen?[4] Does he perchance ascend to Olympus? That is to say, the artist is a creator, not an imitator; and for the capacity to construct novel forms, the term in general use since Philostratus employed it, has been imagination. Thus a rival view of art as imagination was born out of the problem of religious art. Very early in modern times, as early at least as Huarte, Bacon and Pallavicino,[5] in the late sixteenth and early seventeenth centuries, certain important characteristics of imagination were noted: its intimate relation with passion; its kindship with dream; its contrast, nay opposition to reason. Eventually also it has been seen that those products of imagination which we call works of art constitute little worlds by themselves, with their own space and time, different from that of nature; with their own typical structure of organic unity, rhythm, contrast and climax, recurrence and variation of theme; full of their own values or satisfactions, derived indeed from the same springs as those of action, yet independent of action—a realm not of reality, but of appearance, of play. A one-sided emphasis on the make-believe character of art leads to the doctrine of art for art's sake; its corrective lies in the acknowledgment of the element of truth in the theory of imitation—that imagination ceases to interest us permanently if it fails to concern itself with the problems of real life.

However, that art cannot be adequately defined in terms of imagination is clear by reason of the social character of the former and the private character of the latter. Art is in truth a dream, but a dream that can be shared. The outstanding merit of the concept of art as language or expression is that it takes care of its communicable nature. To say just when and through whom this view arose, is difficult. One can perhaps trace it to the studies instituted by the Greek rhetoricians, for we find in Aristotle the crucial distinction between descriptive and emotional expres-

sion, under which art was destined to be classed.[6] Among modern thinkers, Condillac, Vico and Herder had definitely the conception of art as a species of language, and one hundred and fifty years later, Véron was to give this theory unequivocal statement.[7] For the purpose of defining art, three types of language may be distinguished—descriptive or propositional, practical and lyrical. The first is illustrated by a scientific treatise, the aim of which is the record and conveyance of information; the second by a command or entreaty, a sermon or a tract, the intention of which is directly to stimulate or inhibit action; the third is illustrated by a poem or musical composition, the end of which is the induction of a mood. But only music or the abstractionist painting of a Bracque or Picasso is purely lyrical; the language of the other arts is descriptive as well. Thus in poetry the words used, besides expressing feelings, designate objects or express generalizations, and in traditional painting the colored shapes have their meanings, as of houses or trees or the human form. Nevertheless in art the descriptive function of language is not separate from the lyrical; for, in indicating objects or in expressing universals, the artist gives definition and communication to feelings which otherwise would be formless and dumb. Cézanne could not express his feelings towards Mont Sainte Victoire without representing it; Frost could not express his feeling towards the 'passage' of the good without telling us definitely that "Nothing gold can stay." In this connexion it is interesting to note that the difference between what Charles Peirce called 'iconic' and conventional languages is relevant to aesthetics; poetry being an illustration of the latter; painting, sculpture and drama, since they mean objects by offering likenesses of them, illustrating the former. Iconic languages have a sensuousness and easy intelligibility lacking in the conventional, to compensate which, verbal language resorts to metaphor and other figures of speech. On the other hand, verbal language is better able to express generalizations (thoughts).

While the conception of art as lyrical language is enough

to establish the genus, it does not suffice to establish the differentia of art. Two distinguishing characteristics of aesthetic language may be cited. First, in contrast with ordinary language, where the signs or symbols are transparent, attention centering on their meanings only; in art, they are opaque, attention lingering lovingly in them, because they are directly expressive on their own account. In poetry the words themselves, as mere sounds, related through rhythm, assonance, rime and melody; in painting and architecture, colored shapes, repeated, contrasted, balanced, rhythmically disposed, are expressive of vague moods, as music is. Without this music of the mere medium, there is no beautiful art, no matter how significant be the meanings attached. This is the fact expressed by Pater in his well-known statement that all art tends towards the status of music. It is also the ground of the doctrine known as formalism, according to which the form, o. patterned sensuous surface, is the sole bearer of aesthetic value.[8] Yet this theory is certainly in error, for in our experience of art, form and content, surface and underlying meanings, interpenetrate, and to this entire structure, not to one factor only, beauty belongs.

A second distinguished characteristic of aesthetic language is suggestiveness, the paradoxical property, noticed by Kant,[9] of permitting a plurality of meanings, without however incurring ambiguity. In ordinary language, on the other hand, an expression aims to have a single meaning only, an ideal which it realizes perhaps in mathematics alone, but so far as it does not, is condemned. This contrast has been well put by saying that the ordinary expression is a 'unisign', while the aesthetic symbol is a 'plurisign'.[10] Of great importance in the case of art is the combination of a 'first' with a 'second' meaning, or as I would phrase it, of a 'surface' with a 'depth' meaning. Thus in the quotation from Frost, the word "gold" besides its obvious 'first' meaning, has the 'depth' meaning of valuable, and the entire phrase has the 'second' meaning, "nothing good abides." In such a poetic line as "The soul of Adonais like a star

—Beacons from the above where the eternal are," the meanings are numerous, meaning beneath meaning. Every figure of speech is an example of a plurisign. Yet there is no ambiguity here, for all the meanings are relevant to the communication of the complex emotion of the poet, which requires them all for its definition. One might easily suppose that iconic languages were naturally unisignificant, but that is not so in the case of art. The representation of the shepherd and sheep, familiar in early Christian art, is evidently a plurisign, for besides its surface meaning it has also as depth meaning, a whole theory of the relation between God and man. And beneath the surface even of great landscape paintings and portraits, and of statues devoid of allegory, lie many layers of meaning for each spectator.

But although the conception of art as imagination needs to be supplemented by the conception of art as language, there is no contradiction between the two. For lyrical language induces in the artist and in his audience a state of mind akin to the dream, possessed of all the characteristics noted as pertaining to imagination. As a dream communicated, waywardness gives place to order and the assuagement of obscure desires fuses with the satisfaction of intelligible purposes. The best short definition of art remains therefore Shelley's "the expression of the imagination," which unites the two points of view—of communication or language, and of the dream, self-sufficing and detached.

The approach to the philosophy of art by way of criticism belongs to modern times and has developed out of the prolific controversies of the critics, yet the seeds of later discussions may be found in Plato's *Phaedrus* and *Ion,* and subsequently in Horace, Plutarch, and Longinus. In his *Critique of the Aesthetical Judgment,* Kant was, I believe, the first to base aesthetic theory definitely on the aesthetic judgment rather than on the aesthetic experience. The problems have been two: whether aesthetic judgment or 'taste' is intuitive, a sort of 'sixth sense',[11] or rational, an

affair of rules; and what constitutes the beauty or value of works of art to be appraised. The two problems are, however, clearly interconnected; for if beauty be a sort of unique flavor, a 'je ne sais quoi', it would not be susceptible of formulation, but only of immediate apprehension; while if, on the contrary, it be no different in kind from other values, it would be as capable of rational estimation as they are. Considering the tenacity with which each of these alternatives has been maintained by critics with large experience in the arts, it would be strange if there were not some truth in both. For, on the one hand, the fact that a work of art is an imaginative creation implies a surprising uniqueness defying rationalization in terms of any traditional or other scheme. Every original artist has claimed this, and the history of all the arts is a series of revolts. On the other hand, it is yet to be proved that the satisfactions derived from art are generically different from those of ordinary experience. If they are of the same kind, criticism will concern itself with two things: one, the inter-relations of the elements of the work of art, of form and of content, with reference to the contribution of each to the total communicable value, yielding a strictly internal, or 'artistic', standard of perfection; and two, the importance of this value in the light of an accepted philosophy of values. Some students of aesthetics have contended that only the first type of scrutiny is relevant, but by far the larger proportion have recognized that since art is of man and for man, it cannot be held exempt from criticism according to the principles by which other activities are judged. If the religious or metaphysical values are the highest, then those works of art which give them expression in perfect intelligible form, are the greatest. Hence although the narrowly artistic is a necessary, it is not a sufficient criterion of excellence; and if the validity of a second, philosophical criterion is admitted, aesthetic criticism becomes an application of the general theory of value to works of art.

1. See E. Bullough, *Psychical Distance, British Journal of Psychology,* pp. 87-118; and Ethel Puffer, *Psychology of Beauty,* Chapter 3.
2. Aristotle, *Problems,* XIX.
3. D. Diderot, *Lettre sur les sourds et les muets,* 1757, in answer to C. Batteux, *Les beaux arts réduits a un même principe,* 1764. For imitation under the limitation of the beautiful conceived as a form, see L. B. Alberti, *Della Pittura,* Bk. 3.
4. *In Life of Appolonius of Tyana,* VI. 19.
5. J. Huarte, *Examen de ingenios para les ciencias,* 1557; F. Bacon, *Advancement of Learning,* Bk. 2, 1605; Sforza Pallavicino, *Del Bene,* 1664.
6. *De Interpretatione,* 4, 17a, 1-5.
7. E. B. de Condillac, *Essai sur l'origine des connaisances humaines,* 2—ième partie, 1707; Giambattista Vico, *Scienza Nuova,* 1725; J. G. Herder, *Kritische Waelder,* 4tes Waeldchen, 1769; Eugène Véron, *Esthétique.*
8. For perhaps the first clear-cut statement of formalism, see J. F. Herbart, *Einleitung in die Philosophie;* for a contemporary statement, see Clive Bell, *Art.*
9. See Kant's discussion of the 'aesthetical idea', in the *Critique of the Aesthetical Judgment,* §49.
10. This useful term has been coined by Philip Wheelwright.
11. For taste as a sixth sense, see J. B. Du Bos, *Reflexions critiques sur la poesie et sur la peinture,* §§340-342, 1719; for the *Je ne sais quoi,* see Dominique Bouhours, *Les entretiens d'Ariste et d'Eugène,* passim, 1617.

SELECTED BIBLIOGRAPHY

Abercrombie, Lascelles: Towards a Theory of Art, 1926
Alexander, Samuel: Beauty and Other Forms of Value, 1933
Bergson, Henri: Le Rire, 1909
Birkhoff, G. D.: Aesthetic Measure, 1933
Bosanquet, Bernard: History of Aesthetics, 1898
Bosanquet, Bernard: Three Lectures on Aesthetics, 1915
Croce, Benedetto: Aesthetic, 2nd Edition, 1922
Croce, Benedetto: Essence of Aesthetic, 1913
Delacroix, Henri: Psychologie de l'art, 1927
Dewey, John: Art as Experience, 1934
Ducasse, C. J.: Philosophy of Art, 1929
Fiedler, Konrad: Ursprung der kuenstlerischen Taetigkeit, 1889
Gilbert, Katherine E. and Helmut Kuhn: A History of Aesthetics, 1939

Gentile, Giovanni: Filosofia del Arte, 1931
Greene, T. M.: The Arts and the Art of Criticism, 1940
Guyau, J. M.: Les problems de l'esthétique contemporaine, 1884
Hegel, G. W. F. von: Vorlesungen ueber Aesthetik, 1818
Kant, I.: Critique of Judgement, Part I, 1790
Lee, Vernon: The Beautiful, 1913
Lipps, Theodor: Aesthetik, 2 vol., 1903, 1906
Maritain, Jacques: Art and Scholasticism, 1920
Muensterberg, Hugo: The Principles of Art Education, 1905
Parker, DeWitt H.: The Principles of Aesthetics, 1920
Parker, DeWitt H.: The Analysis of Art, 1924
Pepper, Stephen: Aesthetic Quality, 1937
Prall, D. W.: Aesthetic Judgment, 1929
Prall, D. W.: Aesthetic Analysis, 1936
Puffer, Ethel: Psychology of Beauty, 1905
Richards, I. A.: Principles of Literary Criticism, 1926
Santayana, George: The Sense of Beauty, 1896
Santayana, George: Reason in Art, 1906
Schiller, F.: Letters on the Aesthetic Education of Man, 1793—'95
Schopenhauer, Arthur: The World as Will and Idea, 1819
Souriau, P.: La rêverie esthétique, 1906
Tolstoi, Leo: What is Art? 1896
Véron, Eugène: Esthétique, 1878
Volkelt, Johannes: System der Aesthetik, 1905-1914

AXIOLOGY

By Wilbur M. Urban

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I

A NOTABLE CHARACTER of the present situation in philosophy is the general use of the term "axiology." The delimitation of this special field and its final acceptance is in itself of significance in any attempt to understand and evaluate the present situation in what is called the theory of value. The almost simultaneous appearance in so many varied quarters of this "new name" indicated the emergence of new problems which could neither be satisfactorily expressed nor adequately solved under the old categories. The rapidity with which the new term was adopted also made it clear that in it had been found a means, not only of clarifying many issues that had been confused, but also of unifying a field of investigation which had gradually become one of the central interests of modern philosophy.

A number of tendencies in the philosophical world conspired to bring the problem of values into the foreground. Among these some were of a general cultural nature, others more specifically technical. Of the former, Nietzsche's *Genealogy of Morals* is undoubtedly of first importance. Not only did it propose the transvaluation of values which is the characteristic cultural phenomenon of our era, but it specifically denominated the problem of values as the distinctive philosophical task of the future.[1] It would be impossible to exaggerate the influence, direct and indirect, which Nietzsche has had on the development of modern axiology; the role of his ideas in Nicolai Hartmann's *Ethics* is merely an out-

standing case. Of the more technical aspects of the movement Meinong's *Psychologische-Ethische Untersuchungen zur Werttheorie* is certainly the chief factor. The starting point of the more analytical or "scientific" side of the movement, it initiated the long series of technical studies which has made of axiology one of the most technical fields of modern philosophy. Meinong's own development, from a psychological and subjective conception of values to a more objective and phenomenological view, is in a way symptomatic of the entire movement.[2] Part of this technical side of axiology, without which the entire development would be ununderstandable, is the Neo-Kantian movement of Windelband and Rickert. Their denial of the sharp dualism between cognition and value and demonstration of "the value character of the theoretical," opened up important vistas in modern philosophy.

The intimate relation of ethics and axiology brings it about that the field of axiology has been defined largely in relation to ethics. Thus ethics is said to presuppose the larger field of axiology or general theory of value. This is quite commonly the standpoint of modern works on philosophical ethics, but two characteristic works may be taken as illustrations: John Laird's *A Study in Moral Theory* and Hartmann's three volume work entitled *Ethics,* in both of which a new orientation of ethics is proposed, namely to the wider science of axiology. Ethics is itself not axiology but presupposes it. Pure axiology is the study of values of all types, together with their relations; ethics is a special field within this larger sphere.[3]

Axiology is, then, the name given to that part of philosophy concerned with what is called the general theory of value. It is characterized by its concern with a certain group of problems the nature of which may perhaps be best indicated by the topics in the section on Value at the Ninth International Congress of Philosophy.[4] Of the fifty papers presented, three were given to general questions; twelve to the problem of the relation of value to knowledge; three to

problems of cosmology and value; and fourteen to the problem of value and reality. This emphasis upon the epistemological and metaphysical aspects of the value problem is symptomatic of present preoccupations in this field. The problem of action is: What ought I to do? But unless this oughtness is either non-rational or merely formal, there is the further question of *why* I ought. This leads inevitably to problems of value, their nature and their place in an order or scale. But this involves problems of *knowledge* of values. Is there any knowledge of values at all, or are they merely emotional reactions? If there is knowledge, how do we know values as distinguished from things or facts and how do we know that our judgments of value are true? Finally action itself, and the knowledge of values presupposed by action, takes place in a "world," or nature. Is nature itself value-free or is the complete disjunction between value and existence, characteristic of so much of modern philosophy, an error? Is value a purely human phenomenon or part of the cosmos at large? Have values cosmic significance?[5]

II

IS AXIOLOGY POSSIBLE? LOGICAL POSITIVISM AND VALUE NOMINALISM.

It is precisely at the moment that axiology has apparently established itself that a movement in philosophy has appeared which, if it were to maintain itself and if its conclusions were generally accepted, would cut the ground of axiology from under its feet. I refer, of course, to the New Positivism, or "logical positivism," as it is called. So far as the general situation in the theory of value is concerned, this is in many ways a most significant phenomenon. I do not mean ultimately significant (this I do not believe) but significant in the sense of determining—for the moment at least—the form in which certain basal and general questions must be put.

The thesis of positivism is that such a field as axiology is, in the very nature of the case, impossible; and that what are called value or normative sciences are really not knowledge at all. A logical analysis of language shows that what are called value judgments are really not judgments but merely expressions of feeling, and that a value judgment can not, in the nature of the case, be constructed. This value nominalism, as it has been appropriately called, is distinguished from value realism to be considered presently. Its essential thesis is that value words are mere names for feelings and emotions and have no other reference. It is true that there are two forms of this doctrine, the one holding strictly to the view that so-called judgments of value are mere expressions of emotions, have merely emotive meaning, the other that they are disguised factual judgments; but as I have shown elsewhere, only the former is in any sense tenable. The essential point is that in neither case is any knowledge of value, in the sense presupposed by the so-called normative sciences, possible.

I have no intention of going into a critical discussion of this value nominalism here—to me it seems as untenable as it is presumptuous—but merely to indicate the chief problems which it sets to axiology. There are, to be sure, problems of analysis, and it can be shown, I think, that both forms rest upon defective phenomenological analysis of what are called value judgments.[6] But the chief problem is one which goes to the heart of both our culture and our philosophy. It involves the stultification of all our discourse, both practical and theoretical. The proposal to transvaluate all our values is revolutionary enough but it still presupposes values to be transvalued. To say, however, that when we talk about values, moral or other, we are talking meaningless words, that about values no argument is possible, is the final stage in scepticism and nihilism. This is gradually being realized and the denial of the possibility of axiology by positivism has ceased to be anything more than a stimulating way of formulating some of its problems.

III

THE OBJECTIVITY OF VALUES. VALUE REALISM.

AXIOLOGY, or the general theory of value, had, as we have seen, a double motive: the one cultural, the other technical. The former was the evaluation of our values—a question which Nietzsche believed had never really been seriously raised. The solution of this problem, it was however felt, required a prior determination of the nature of value as such —in other words a generic concept of value. This was sought, in the first place, in what may be described as a relational definition or theory of value. Value in this sense was conceived as a function—as a functional relation between objects and desire, or between objects and feeling, or ultimately, in the terms of Perry, a function of the relation "of any object to any interest."[7]

In the very nature of the case the study of values began with the psychology of values (*Psychologische-Ethische Untersuchungen zur Werttheorie*).[8] This carried with it two implications which may be said to be the unexpressed premises of the entire first stage of the movement, namely subjectivism and naturalism. If generically value is a function of the relation of any object to any interest, if it is precisely this interest that creates the value, then values and value qualities are subjective in a sense that the natural qualities of things are not. They are dependent upon this interest for their *being*. In the second place, since interests themselves are conditioned by biological processes and functions, or, to use the terms of Orestano, "value is a biological phenomenon appearing in a psychological form," a naturalistic theory of values is inevitable.

The subjectivism of this position has been the object of criticism in varied philosophical quarters, and the criticisms are, up to a point, all of the same general character. Idealists, pragmatists and realists unite in refusing to see in liking or disliking, in having or not having interest in an object, the generic character of value. A value judgment is not merely a disguised factual judgment. If I say "peace is a good"

that judgment is not merely a shortened form of the factual statement that people are interested in peace; it is a statement that peace *ought to be.* All agree in maintaining some form of objectivity of values, even if it be merely the quasi-objectivity of the pragmatist.[9]

Of these criticisms one may be singled out as peculiarly symptomatic of the general situation, namely that of John Laird. According to him this type of theory is concerned with only one of several aspects of the value phenomenon, namely values of subjective "appreciation." These are however midway between two other types of value, namely values of "election," within the cosmos itself, and objective values as essences. These values of appreciation presuppose the former for their existence and the latter for their significance.[10] Space will not permit me to enlarge upon these points here but the position may be taken as indicative of a significant tendency in present day theory of value. The arguments by which it is sought to show that even the values of appreciation have significance only through reference to objective values are typical, but even more important, perhaps are the arguments for the extension of value into the cosmos at large, for they represent an important tendency in present day Anglo-American philosophy to be considered presently.

The naturalistic aspect of this subjective theory of values is also subject to continuous criticism, a criticism maintained by idealists and realists alike. For a long time naturalism in value theory was in the ascendency but the tide has definitely turned. So far as Anglo-American value theory is concerned, the turning point may for historical purposes be designated by the appearance of G. E. Moore's *Principia Ethica* with its formulation of the notion of the "naturalistic fallacy." Directed primarily against the evolutionary naturalism which for a time had swamped ethics and value theory in general, it was given a much wider significance. It made clear to many at least that any attempt to define value in terms of relations between existents, to derive the ought from the is, involves this fatal error.

Moore applied this notion of the naturalistic fallacy not only to evolutionary naturalism in ethics and to various forms of hedonism and utilitarianism but also to all attempts to base the "ought" on the "is" and thus to all ethics of a metaphysical type. Of this anti-metaphysical aspect of the position of value realism we shall have more to say in the sequel. Here our interest is primarily in the bearing of this notion on the movement called value realism.

B

In this general movement toward objectivity the phenomenological movement in the narrower sense has contributed largely, its influence being dominant in most of the papers of the Congress to which reference has been made. The revolt against psychologism in the field of logic was followed inevitably by a similar revolt in the sphere of morals and of values generally. From this has followed a value realism which, in contrast to subjectivist views, with their inevitable nominalism, has, for the moment at least, apparently dominated the field of axiology. The movement inaugurated by Scheler and Hartmann is too well known to require a detailed statement here.

In so far as fundamentals are concerned, the German form of value realism does not differ in principle from the Anglo-American. It is merely that, its philosophical antecedents being different, it differs in form of statement. It is equally anti-subjectivistic and anti-naturalistic. The value predicates are for Scheler and Hartmann as much objective *quales* as they are for G. E. Moore and his followers. The point of departure for the German form is a critical evaluation of Kant rather than of the naturalism and empiricism of English ethics. The "principle of autonomy" of Kant is accepted, as opposed to all naturalism and reductionism, but an important revision of his analysis of the ought is insisted upon. Both the formalism and the intellectualism of Kant's position are abandoned, the ought being carried back to values as essences which are emotionally intuited. The phenomenological an-

alysis of the ought in all its forms is, from one point of view, the most significant contribution of this movement.

C

This value realism involves a reinstatement of intuitionism in ethics and value theory, but the new intuitionism, in both its Anglo-American and in its continental form, is no mere revival of the intuitionism of the seventeenth and eighteenth centuries with which philosophers sought to meet the subjectivism and scepticism of those times. More particularly the doctrine of emotional intuition, as developed in the phenomenological school, is based upon a subtlety of analysis wholly unknown to earlier forms. This doctrine is an application in principle of the same argument against subjectivism in the sphere of sense *data.* The distinction between sensation and sense *datum* is paralleled by a similar distinction between the emotional *Erlebniss* and the *wert datum* which is *erlebt.* Whether in the form of Moore or in that of Scheler and Hartmann, this part of the argument for value realism seems to the present writer to be final.

It would, however, be idle to contend that the value realism thus developed has been wholly satisfactory. We may be convinced by the arguments of a Moore or a Hartmann that values are objective. We may see how such objectivity implies a doctrine of intuition. But here our certainty ceases. The doctrine of emotional intuition, associated with the phenomenological form of the movement, raises difficulties. Some representatives of this value realism, as for instance Laird, think of this intuition as rational insight rather than emotional. Even if we see that such objectivity implies intuition of an emotional rather than a perceptional or rational type, it is still extremely difficult to state the doctrine satisfactorily. For most philosophers it is almost impossible to say the word "emotional" without saying the word "subjective" in the same breath. It must be frankly admitted that much more work must be done on this problem before any theory of intuition can be formulated which will be generally

convincing. Even more difficult is the problem of truth and error in this field. Any form of intuitionism finds difficulty in handling the problem of error and this is *a fortiori* true in the case of the doctrine of emotional intuition. If there is valuational truth there is also valuational error. It is true, we may with Scheler and Hartmann speak of valuational blindness—and doubtless there is such a thing—but the notion solves no problems. What is needed is a much more fundamental study of the problem of verification in this field; and the challenge set by logical positivism should be fruitful in the further developments of axiology. If the notion of value judgment, as opposed to mere expression of emotion, is to be retained, some more detailed theory of the verification or validation of such judgments becomes imperative.

IV

AXIOLOGY AND THE SOCIAL SCIENCES

CLOSELY CONNECTED with this problem of the knowledge of values is one which may be described as the problem of value in the social sciences, a problem which is increasingly coming to the forefront in the methodology of those sciences. It is apparent to every one that there is something of the nature of a crisis in these sciences. This crisis has been developing for some time—ever since, in fact, the appearance of Rickert's *Die Grenzen der Naturwissenschaftlichen Begriffsbildung*—but for reasons which need not be gone into here it has come to a head in American thought only recently.

The situation may be described briefly in the following way. That these sciences are not sciences in the ordinary sense has become increasingly apparent. Any body of propositions such as those which make up so-called social or political science, contain judgments of two kinds—those of fact and those of value. The former can, of course, in principle be verified in the same way that factual judgments can be verified in other fields of science. But these are not really

the propositions which give the peculiar significance to these fields. It is rather the value propositions, the normative judgments which constitute the life blood of these sciences.

For a long time many were under the illusion that the valuation judgments which give purpose and meaning to the social sciences could in some way be derived from judgments of fact. This illusion has, however, been pretty well dispelled. Many practitioners of these sciences may not have heard of the naturalistic fallacy which is so significant in value theory itself, but they have come to sense it nevertheless. An interesting situation is thus created. Either these sciences are merely factual—and all judgments as to the value of any social and political form, are expressions of personal feeling, of our own likes and dislikes—or else there are objective values and these can be shown to be verifiable in some way. There are many who frankly accept the first horn of the dilemma and, when they are consistent, accept also the position of logical positivism in this matter. But there are an increasing number who find it difficult to accept this complete scepticism, who are reexamining the methodology of the social sciences. And it is coming to be seen that here also there is no middle ground between this positivism and some form of objective axiology. In American social science many have, it is true, sought a middle ground in pragmatism with its quasi-objectivity and its instrumentalist notion of verification, but it is becoming increasingly clear that such a position is ultimately untenable.

In a recent article entitled *Science and Value; Fact and Value in the Social Sciences*[11] I attempted to show in detail how this crisis has arisen and how the problem of fact and value has become the central methodological problem in history and all the political and social sciences. I attempted to show also the inadequacy of all attempts to solve this problem (naturalistic, pragmatic, etc.)—all attempts short of a value realism and a recognition of axiology in this sense, as the basal discipline of all these sciences. In conclusion I formulated the dilemma so keenly felt within these particular

sciences in explicit terms. This dilemma is nothing more or less than that already suggested in our comments upon value nominalism. It is admitted that the social and political sciences contain both fact and value, factual and value propositions. Either these value propositions are subjective or they are not. If they are subjective then they are merely the expressions of liking and disliking, whether individual or collective—and all notions of truth and falsity are irrelevant. If they are objective, as I believe, and judgments about them can be true or false, then this is possible only if there are objective values and an objective order of values. Either there is science or knowledge of social and political good or there is not. If there is not—if there is only knowledge of fact—of individual or collective desires and interests—then all attempts of these sciences to pronounce on values are either irrelevant or gratuitous. All belief that they can tell us what ought to be in the economic, social and political spheres is sheer illusion; and if the practitioners of these sciences continue to let it be understood that such pronouncements are possible they are resecuring the public's interest under false pretenses.

V

THE VALUE CHARACTER OF THE THEORETICAL: KNOWLEDGE AS INVOLVING VALUATION.

ONE OF THE CHIEF SOURCES of the axiological movement as a whole was, as we have seen, that phase of Neo-Kantianism connected with the names of Windelband and Rickert. From the more general philosophical point of view this movement was a reaction against the sharp dualism between cognition and value, between the theoretical and the practical, in its classical form in Kant. It consisted essentially in the extension of the Kantian notion of reason as determined by the good or value, apparently confined to the sphere of the practical reason, to thought or reason as a whole, and with it the widening of the notion of values in its generic sense to include cognitive or logical values.

The phase of this movement which has, perhaps, the widest general influence is the notion of history, and the *Geisteswissenschaften* in general, as value sciences. The demonstration that in these fields at least this dualism could not be maintained has, of course, had great influence upon the development of the methodology of these sciences, as we have already seen. But the influence of the movement did not stop here; it led ultimately to a still wider notion, namely, of what Rickert calls the "value character of the theoretical" in all its forms.

This was indeed implicit in Kant himself who, in the latter part of the *Critique of Pure Reason,* especially in that part described as the Canon of Pure Reason, subsumed all types of the employment of the reason, both theoretical and practical, under the idea of the Good.[12] But this element in Kant remained unexploited, not only until Kant himself was better understood, but also until the field of axiology and its special problems was systematically developed. The general notion of "the value character of the theoretical" was inevitable as soon as the notion of a wider field of axiology was introduced. For beside the ethical values must be placed not only aesthetic but cognitive or logical values. Two versions of this general conception became current, the one the pragmatic or instrumentalist, the other the doctrine of absolute values, the relation of the two being expressed in the terms of Windelband when he said that pragmatism is "the outer court of the temple of truth, not its inner shrine."

Now I think the general result of this movement has been to make us realize that the sharp dualism between knowledge and value is untenable. We know that truth is a value and we also know that all ultimate notions are related to ends and values—in other words that the problem of knowledge cannot be divorced from the problem of value. But while we realize all this, our understanding of the relation has not gone much further. In fact our thought here seems to have come to an *impasse*—not wholly unlike that which confronts value realism. Knowledge itself is determined by

reference to values. Values are determinative of our judgments of existence and truth. But what is the status of these values? Are they themselves either existent or true?

This is, indeed, a conundrum, and one that was inevitable in the development of axiology. The answer given by Rickert —that values are neither existent nor non-existent, but merely valid, is perhaps the only one possible, but it would be idle to pretend that it is wholly satisfactory. The notion of values as "unreal"—as meaning structures beyond all distinctions of being, and as merely valid—while perhaps logically necessary, is an even more difficult conception than the phenomenological notion of values as essences or self-subsistent entities. Now I do not deny that this notion has an important element of truth. As over against the subjective and merely pragmatic theories of value, this tendency, like the phenomenological, was an important means of clarification and rescue, and to lose the insights which it has brought would be a reversion to wholly uncritical ways of thinking. What I do say is that it has never yet received a form of statement which is either generally convincing or without fundamental difficulties. As I have put it elsewhere, it is indeed necessary to be able to ascend to this rarefied atmosphere of essences, of meaning structures and validities—indeed unless we do so we shall never understand the ultimate problems of axiology, to say nothing of solving them—but it is not possible to remain there. We must come back to earth and when we do we are faced with the ultimate problem of Value and Metaphysics.[13]

VI

VALUE AND REALITY: METAPHYSICAL PERSPECTIVES.

OF THE FIFTY PAPERS already referred to, fourteen were given over to the discussion of questions falling under the rubric, value and reality. What, we may ask, is meant by such a notion? Obviously we are here concerned with what philosophers know as metaphysical problems. Problems of this nature inevitably emerge from all the movements in

axiology which we have been considering. One may insist upon the independence of ethics or axiology of metaphysics, but this separation can never be more than temporary and methodological in character; the metaphysical issue always returns in all its force.

This issue may be stated in the following way. For all forms of axiology *the values are there*—in some sense. But in what sense are they there? Even for a value subjectivism and naturalism they are there in the sense of mere emotions or facts of liking or disliking. For value realism they are there as essences, but are they merely essences and is there a disjunction between value and existence, between values and the cosmos? They are there as imperatives for the human consciousness—indeed this imperative character of oughtness is part of their essential being or their validity—but are they there only for the human? Is the human the only part of the cosmos in which values pass over into actualization or existence, in which essence, so to speak, implies existence? Thus are opened up what Hartmann has called "metaphysical perspectives" and these perspectives are a necessary part of any axiology.

A very general view on this question is what we may describe as humanism. Humanism, from this point of view at least, holds that values belong only to the human part of the cosmos or nature and must be denied any cosmic significance. Such humanism, whether it be associated with naturalism and its value nominalism, or with value realism is, perhaps, the dominant conception today. As opposed to this we have, however, a tendency in many types of philosophy which, using the terms of C. Hartshorne, we may describe as "beyond humanism."

The humanistic position, whatever form it may take, is based upon three main arguments: (a) that to give cosmic significance to values means anthropomorphism; (b) that any cosmic teleology means doing violence to science or a reversal of the categorial scheme of true knowledge; and that, finally (c) to maintain a cosmic teleology is to human-

ize the cosmos, and "the humanization of the cosmos means the dehumanizing of man."

This is not the place to examine these arguments in detail. I myself believe that none of them will stand and any one interested may find the grounds for that opinion in a brief form in my *Language and Reality.*[14] Indeed I think that as we may speak of a *pons asinorum* of naturalism, we may also speak of a *pons asinorum* of humanism. If one does not see that if we are to give any real significance to teleology in the human, there must be teleology in the cosmos of which the human is a part—if he does not see that the significance of values in the human implies their cosmic significance—then I think the genuine problems of axiology must remain a closed book. In any case in Anglo-American philosophy at least there is a strong movement beyond humanism and this movement has led to metaphysical systems in which the notion of value plays a fundamental part.

B

Certain main tendencies in Anglo-American philosophy—at least on the metaphysical side—are outstanding examples of the tendency to make value in some form coextensive with reality. In a paper entitled *The Objectivity of Values,* Alexander maintains that value, in its elementary non-human form, is the universal feature of the interconnection of things —a restatement, of course, of his position in *Space, Time and Deity.*[15] Laird in *The Idea of Value* maintains in principle the same position, and Whitehead develops his philosophy along the same general lines in *Process and Reality.*

Whitehead's philosophy is from the standpoint of this present problem the most interesting and challenging of recent times. He conceives it as his main task to overcome the isolation between natural science and value experiences and, in order to bridge this gulf, he, like both Alexander and Laird, reads value down into the most elementary constituents of the universe, and in so doing develops a pan-psychism which, while sharing the general character of the classical

forms such as those of Leibnitz and Schopenhauer, has developed novel conceptions of importance.

This has been made possible chiefly by certain notable changes in the fundamental conceptions of modern physics. As is well known, the tendency towards idealism of many of the leading physicists has seemed to many to open up a place for values in the scheme of the cosmos apparently not possible in the conceptual structure of the older physics. Two main factors are responsible for this tendency, namely, the changes in our conception of matter and secondly the changes in the status assigned by many physicists to natural laws. The ultimate components of reality being no longer substantial material entities persisting through time and moving in space, but a very different type of entity which is described as "events," it becomes possible to correlate with these ultimates of analysis value in its "non-human elementary form" as a universal feature of things.

As a magnificent attempt to overcome the modern disjunction between value and existence and the naturalistic humanism which it involves, it can only be welcomed as of outstanding importance. But it does not at all follow that the perspective thus opened up is satisfactory, or that the solution of this fundamental problem of all philosophy can be maintained. Two main difficulties inhere in this position. Granted all the arguments for refusing to confine the value notion to the human level of desire and interest, it is nevertheless difficult to recognize in this "elementary, non-human form of value" the same thing that we are talking about when we speak of value in the sense either of the values of appreciation or the objective values of value realism. No less difficult is it to accept the separation of value from mind which is involved in this philosophy, for the notion of value seems to become meaningless when it is abstracted from mind in every sense. It is true that Whitehead's formulation of the theory seems to avoid this. By distinguishing between subjective immediacy, which he attributes to all ultimate entities, and consciousness, which is secondary and derived,

he is able to affect a sort of solution of the difficulty and in a sense to overcome the disjunction between mind and value. Nevertheless it involves the revival of pan-psychism with all its difficulties. It is not strange that many find themselves rather forced back to old fashioned notion of values as subsisting in the mind of God. One may well admit the element of poetry and symbol in such language and at the same time feel that it contains a fundamental truth.

The difficulties which we find in this Anglo-American movement do not at all prevent us from recognizing both its timeliness and its value. One can have nothing but praise for the insight that sees that the complete disjunction between value and existence, which has characterized modernist philosophy, must be challenged, and for any attempt, however tentative, to return to the axiom of inseparability of value and being which has, from the beginning, characterized traditional European philosophy.

VII

CONCLUSION: AXIOLOGY AND OUR PRESENT CULTURE.

I HAVE BEEN ASKED to conclude this review of the present situation in axiology with a statement of my own position. In a sense my views can be gleaned from the preceding account. They are moreover already stated in detail in the article *Metaphysics and Value,* referred to, and in Chapter IV of my book *The Intelligible World,* also entitled "Metaphysics and Value." Instead, therefore, of stating again these main positions I shall conclude with a short discussion of Axiology and Our Present Culture, in which my main positions will be made clear.

Culture has been described as "the measure of things taken for granted." When within a given culture things are no longer taken for granted, a crisis in culture ensues and part of this crisis is always the bringing into the foreground of the things taken for granted. This, as I have already suggested, is the "story" behind the developments of modern axiology.

This crisis is recognized in all quarters, however it be interpreted and whatever suggestions may be made as to its solution. That which precipitated the crisis was the insight, largely due to Nietzsche, that our moral values cannot be grafted on the evolutionary naturalism of Darwin, that if the latter be taken seriously a veritable transvaluation of all our values is inevitable. With the development of this understanding appeared the more general problem of "science and values" which, as John Dewey rightly sees, constitutes the standing problem of modern philosophy.

The significance of this crisis can be understood only if we realize that the values of our European culture were bound up with "a magnificent metaphysical and theological structure which had endured for a thousand years." The question is whether "science" has destroyed this structure, and whether, if it is "gone," the values, as we know them, are still there. The whole of modern humanism, from Ludwig Feuerbach to the present day, is one long attempt to show that they are independent of this structure. I think it may be said that this attempt has been a failure. There is something very appealing—and for a time persuasive—in the argument that whatever our scientific intellect may do with the world, our emotional intuition of values is still there. But we know in our inmost souls that this is not so, and it is the realization of this fact—largely against our very wills—which from Nietzsche on, has generated all our feverish talk about values.

The preoccupation with value problems which characterizes our present situation in culture and philosophy has given us a new insight into the history of this European culture and of its philosophy, and, from this point of view, the history of philosophy is being partly rewritten. The centrality of the value notion in this philosophy is now an accepted principle of its interpretation. The primacy of values has, as Hartmann has pointed out, been, rightly or wrongly, the characteristic of European philosophy. "Everywhere, except with difference of form, the axiological principle is made the

foundation of the whole."[16] The magnificent metaphysical and theological structure, the *philosophia perennis* which constitutes European philosophy, was a value-charged scheme of thought, a scheme of thought in which value and being were forever inseparable. The metaphysical disjunction between value and existence is a wholly modern phenomenon.

As we have achieved this new insight into European culture and philosophy, so also we have come to understand more fully the wholly modern disjunction between value and reality. It began with the physics of Galileo and Newton. The consignment of the secondary qualities to the mind was followed *a fortiori* by the tertiary qualities. A subjective theory of values was even more inevitable than a subjective and sceptical theory of knowledge. Kant was fully aware of this fact and he made valiant efforts to stem the tide by his conception of the quasi-objectivity of values as developed in the *Critique of Practical Reason.* Whatever may be said of it philosophically, culturally it failed to stem the tide of subjectivism and naturalism, for the latter was reinforced by Darwinism and evolutionary naturalism which swept everything before it. The movement to value realism, with its revolt against subjectivism and naturalism is, again culturally speaking, a second attempt to stem the tide. Whether it will be more successful than the Kantian, who shall say?

The story of modern axiology is then in one sense the story of a culture fighting for its very life. The value realism of which we have spoken may be merely the dying gasp of this culture, for so long as it remains wholly humanistic it is powerless to live. There are indeed signs that this may be so. I myself am not insensible to the force of the Nietzschean argument which, starting with the assumption that the entire metaphysical structure is gone, and proceeding from the premises of evolutionary naturalism, concludes that our traditional values are gone also. It may be that our desperate efforts to retain these values, despite their absurdity on the reigning naturalistic premises, is itself a weakness and that these very ideals are themselves ghosts of Plato and Aristotle,

which, in the light of a more perfect scientific day, will vanish away. Nor am I wholly insensible to the possibility that the history of our culture has actually reached this final stage. One need not accept the metaphysics of Spengler's philosophy of history in order to admit to an uneasy feeling that our culture is going very much the way he describes. Whether we use the terms "fate" and "destiny" or not, a tide in the affairs of man seems to have set in this direction and little can apparently be done until the tide turns. All this may indeed be true, but it does not in the least affect the fact that our culture, so long as it remains wholly humanistic, will be powerless to live.

In any case—and this is my main point here—the technical aspect of modern axiology is but the external form of a much deeper issue. As Nietzsche only too clearly saw, the "value of our values" is *the* question of modern philosophy; the "future task of the philosophy" is the solution of this problem and to its solution "all other sciences have now to pave the way."

1. *Op. cit.* "Preface" and "Note to First Essay," *Good and Evil, Good and Bad.*

2. In an article, "Metaphysics and Value" (*Contemporary American Philosophy,* Vol. II,) I described how these two tendencies combined in my mind to create interest in the value problem and to determine the direction which my studies have taken. I believe this to be true of a large number of those who have been preoccupied with the problem of value.

3. John Laird, *op. cit.* p. 535; Nicolai Hartmann, *op. cit.* Vol. I, p. 45,

4. Travaux du IXe Congrès International de Philosophie, Fascicules X, XI, XII, Hermann & Cie, Paris 1937.

5. See my article, *The Present Situation in Axiology,* Revue internationale de Philosophie, 15 Juillet 1939.

6. *Language and Reality,* Chapter IV, pp. 159 ff.

7. R. B. Perry, *The General Theory of Value.*

8. H. O. Eaton, *The Austrian Theory of Value.*

9. John Dewey's criticism of this position in his *The Quest for Certainty* (Chapter X), is especially interesting in this connection. It illustrates at once the nature of the criticism of the purely subjectivist theory, as well as the quasi-objectivity accorded by the instrumentalist to the value judgment.

10. John Laird, *The Idea of Value,* especially Chapter VII.

11. "Science and Value" *Ethics,* April 1914, Vol. LI, Number 33. A paper presented at a joint session of the American Philosophical Association and Section K of the American Association for the Advancement of Science, Philadelphia, December 28, 1940.

12. This thesis is developed in detail in a paper entitled *Kant and Modern Axiology,* published in *The Heritage of Kant,* edited by George Tapley Whitney and David F. Bowers, The Princeton University Press, 1939.

13. *The Intelligible World,* Chapter IV.

14. *Op. cit.* p. 725. Other places in which criticism of the humanistic position may be found are N. O. Lossky, *Value and Existence,* and Hartshorne's *Beyond Humanism,* already mentioned.

15. Published in the "Proceedings" of the Ninth International Congress of Philosophy, already referred to.

16. *Ethics,* Vol. I, p. 241.

SELECTED BIBLIOGRAPHY

Urban, W. M.: The Intelligible World, 1929, Ch. 4

Urban, W. M.: "Metaphysics and Value," Contemp. Amer. Philosophy, II., 1930

Urban, W. M.: "The Present Situation in Axiology," Revue intern. de philos., 1939

Urban, W. M.: "Science and Value; Fact and Value in the Social Sciences," Ethics., April, 1914

Urban, W. M.: Valuation, 1909

Alexander, Samuel: Beauty and Other Forms of Value, 1933

Dewey, John: The Quest For Certainty, 1929

Eaton, H. O.: The Austrian Philosophy of Values, 1930

Hartmann, Nicolai: Ethics, 3 Vols., 1932

Laird, John: The Idea of Value, 1929

Losski, N. O.: Value and Existence, 1935

Moore, G. E.: Principia Ethica, 1929

Nietzsche, Friedrich: Genealogy of Morals, 1887

Perry, R. B.: The General Theory of Value, 1926

Rickert, Heinrich: Die Grenzen d. Naturwissenschaftlichen Begriffsbildung, 1896

Scheler, Max: Der Formalismus in d. Ethik und d. materiale Wertethik, 1921

PHILOSOPHY OF LAW

By Roscoe Pound

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I think of law as in one sense a highly specialized form of social control in a developed politically organized society —a social control through the systematic and orderly application of the force of such a society. In this sense it is a régime—the régime which we call the legal order. But that régime operates in a systematic and orderly fashion because of a body of authoritative grounds of or guides to determination which may serve as rules of decision, as rules of or guides to conduct, and as bases of prediction of official action, or may be regarded by the bad man, whose attitude is suggested by Mr. Justice Holmes as a test, as threats of official action which he must take account of before he acts or refrains from action. Moreover, it operates through a judicial process and an administrative process, which also go by the name of law—a development and application of the authoritative grounds of or guides to determination by employing a received and so authoritative technique by the light of received and so authoritative ideals. The idea of system and order and predictability lies behind every meaning which has been given to the term law—to all of what the analytical jurist calls analogous uses of the term—and every application of the word until the rise in recent times of absolutist ideas which would apply the term to whatever is done by those who wield the powers of a politically organized society simply because, and no matter how, they do it.

When, therefore, one asks himself what is the task of the law, what is the end to which this régime, maintained by politically organized societies, adjusting relations and ordering conduct through a judicial and an administra-

tive process, and carried on by employing a body of recognized or established precepts, applied by an authoritative technique in the light of authoritative ideals—when one asks himself what all this complicated machinery is for, the answer must be that the end, whatever it is, is the end of social control of which law in all three of its meanings is a specialized form. But we cannot neglect that question, difficult of answer and far reaching in the implications of the answer as it may be. For received ideas as to the answer, traditionally established, are an important item in the received grounds of or guides to determination of controversies and are decisive in the choice of starting points for legal reasoning, the interpretation of legal precepts and the application of legal standards.

A prevailing type of philosophical thought today, going upon Kantian epistemology, tells us we cannot answer this question. No doubt we cannot answer it absolutely. But law in all its meanings is a practical matter. If we cannot give an answer which will be absolutely demonstrable to every one and wholly convincing to the philosopher, it does not follow that we may not have a good workable blueprint of what we are trying to do and be able to make a good practical approximation to what we seek to achieve. There are many practical activities the postulates of which will not bear critical logical examination if we demand of them an absolute correspondence of phenomena to theory, but nevertheless serve their practical purposes very well. If, as is now taught, we live in a curved universe in which there are no planes and straight lines and right angles and perpendiculars, it does not follow that we must give up surveying which does its work satisfactorily on the basis of such postulates. If we cannot make a watertight demonstration of the end to which the legal order is directed in practice, if we cannot attain that end completely, the history of civilization shows we can make a continually closer practical approximation, and that it is because of this practical approximation that the legal order and the body of authoritative grounds of or guides to determina-

tion have been able to develop and maintain themselves.

What we are seeking to do and must do in a civilized society is to adjust relations and order conduct in a world in which the goods of existence, the scope for free activity, and the objects on which to exert free activity are limited, and the demands upon those goods and those objects are infinite. To order the activities of men in their endeavor to satisfy their demands so as to enable satisfaction of as much of the whole scheme of demands with the least friction and waste has not merely been what lawmakers and tribunals and jurists have been striving for, it has also been put in one way or another by philosophers as what we ought to be doing. Life in accord with nature or measured by reason (that is, in accord with an ideal in which the perfect man seeks only what as such he ought to have, and renders to others as perfect men what they ought to have) reconciling wills of free men in action by a universal law giving a maximum scope for free activity to each, reconciling of what used to be called instincts in action, bringing about a maximum of happiness, satisfying the wants of each so far as compatible with satisfying the wants of all—these are different ways of putting this practical task which the courts and lawyers have been going about doing in a practical way from the time when the rise of political organization of society led to courts and lawyers as agents of organized social control.

If, as lawyers must, we look at law, in all of its senses, functionally with respect to its end, as that end is at bottom the end of social control, our science of law cannot be self-sufficient. Ethics has to do with another great agency of social control covering much of the ground covered by the legal order and having much to tell us as to what legal precepts ought to be and ought to bring about. Security which the law, in an adjustment of relations, has continually to seek to keep in balance with the individual life, is in special degree called for by the economic order which is the subject of another social science. We cannot ignore it in a science of law, but just as some sought to merge

jurisprudence in ethics, there are those who would refer everything in law in all of its senses to economics, with no more warrant. Again, there is the science of politics. Since the legal order is a régime of social control through politically organized society, the science which organizes our knowledge of such societies cannot be ignored, although jurists in the English-speaking world have been wont to give it an exaggerated importance in their interpretation of legal history and their accounts of legal institutions. Sociology has for a time gone off into methodology and is more concerned with demonstrating that it is a separate science, by developing its separate method, than with organizing our knowledge of the phenomena of human association. But the science of society did much for the law a generation ago and can do so again particularly in what has been called social psychology. History is not to be overlooked. The history of civilization has much to tell us of how law has operated to maintain and further civilization, how it has grown out of civilization, how it has been adapted to new types of civilization, and perhaps how at times it has hindered, as at other times it has furthered, civilization. Finally, there is psychology, with much to tell us not only about the claims and demands we must be busied to reconcile or adjust, but also about the bases of the conduct we seek to order and the underlying bases of the processes, judicial and administrative, as well as the lawmaking process, by which the legal order is maintained and the precepts by which those processes are to be guided are devised and formulated.

From Roman times, except for analytical jurists in the nineteenth century, philosophy has been recognized as something indispensable for the jurist. In a great part of the history of juristic thought it has been misused to frame ideal systems of legal precepts of supposed universal validity for times, places, and men. But it has a task of the first importance in organizing and criticizing the ideal element in the body of authoritative grounds of and guides to determination. When it seeks to do more than that, and, on

the one hand, furnish a universal plan or absolute starting points or charts for all times and places, or, on the other hand, to tell us that we can't do anything but observe the unfolding of an idea by its intrinsic power or the orbit of development according to fixed laws, as beyond our control as the revolutions of the planets, or that we are inevitably caught in a mess of irreducible antinomies so that we can do no more than let things work themselves out, the lawyer has learned to cease to follow the philosopher and to go on upon the basis of experience developed by reason and reason tested by experience. The philosophical jurisprudence of the seventeenth and eighteenth centuries held that everything in the science of law could be achieved by a sheer exercise of reason. Philosophy was the one necessary instrument of the jurist. The metaphysical jurisprudence of the nineteenth century held that philosophy could demonstrate the idea that was realizing itself in legal development or the orbit of legal evolution, but after showing us these necessary paths from which there was no escape, it could not help us. Much of philosophy of law today is equally assured that we cannot do much toward making law in all its senses achieve its end better. These give-it-up philosophies and the juristic skepticism to which they lead, or which they aid and abet, may serve for philosophies of law. They will not be of help as philosophical jurisprudence.

In the nineteenth century jurists were concerned chiefly with three problems: the nature of law, the interpretation of legal history, and the relation of law and morals.

As to the nature of law, as I see it, our difficulties lie in the different meanings for which we have been using the one word. In the languages of Continental Europe the word we translate as law has a meaning for which we have no word in English and conveys an idea very hard for us to understand, which can only be indicated by some such awkward phrase as right-plus-law or what-is-right-backed-by-law. But if we read critically the books in our own tongue we soon perceive that 'law' may mean any one

of the three things I indicated at the outset and that some address themselves to the nature of the legal order, some to the nature of the body of authoritative grounds of or guides to decision, and some to the process of adjudication or the process of administration, and assume that a theory of the one will of course do for the other two. Moreover, the oldest of the meanings as employed by jurists, namely, the body of authoritative guides to decision, usually thought of down to Kant and very generally since as a body of rules of conduct, is composite. Instead of being, as Bentham took it to be, an aggregate of laws, that is, of rules in the strict sense, such as the provisions of a penal code, it is made up of precepts, an authoritative technique of developing and applying the precepts, and a body of received ideals as to the end or purpose of the legal order, and hence to what legal precepts ought to be and how they ought to be applied. These received ideals are just as authoritative as the traditionally received precepts and are often much more obstinate and manifestly are longer lived than the rules which were all that the analytical jurist could see in the last century.

But this is not all. The precept element in law in the second sense has no less than four constituents: rules in the strict sense, principles, precepts defining conceptions, and precepts prescribing standards. If all of these could be called rules in a wider sense, yet conceptions and standards, which play very important rôles in the administration of justice, are not rules in any sense. Indeed, much harm has been done in American constitutional law by trying to reduce the standard of due process of law to a body of rules analogous to rules of property.

By rules I mean precepts attaching a definite detailed legal consequence to a definite detailed state of facts or situation of fact. Such rules were the staple of ancient codes and are found today chiefly in criminal law, in commercial law, and in the law of property.

By principles I mean authoritative starting points for legal reasoning. They do not attach any definite detailed

consequence to any definite, much less detailed, state or situation of fact. They furnish a basis for reasoning when a situation not governed by a precise rule comes up for consideration as to what provision should be made for it. By legal conceptions I mean authoritatively defined categories into which cases may be put with the result that certain rules and principles and standards become applicable. Such things as trust, sale, bailment, will occur to one at once in this connection. Legal standards are defined measures of conduct, to be applied according to the circumstances of each case, entailing liability to respond for resulting injury in case the limits of the standard are departed from. There is no definite state of facts provided for and no definite detailed consequence is prescribed. Examples are the standard of due care, the standard of fair conduct of a fiduciary, the standard of reasonable facilities imposed on a public utility.

When it is perceived how much we have been seeking to embrace in the one word 'law,' it will be seen why so much of the discussion as to the nature of law in the last century was so futile.

With the passing of the era of history, for such was the nineteenth century, the interpretation of legal history is no longer taken to be the key to the science of law, and economics and psychology have arisen to furnish universal solvents instead. As to the relation of law and morals, we have again to contend with difficulties due to the use of one word with more than one meaning in a connection in which the context will not distinguish, because the writer does not. When we write of the relation of law and morals we may mean the relation of the legal order to a received body of ethical custom in a time and place or to an organized body of principles as to what conduct ought to be, not actually obtaining anywhere, but arrived at by speculation instead of by observation. Or we may mean the relation of the body of received grounds of or guides to decision to either or both of what are put under the name 'morals.'

Or we may mean the relation of the judicial or of the administrative process or of both to either or both of the things for which the word 'morals' has been used. It is not unlikely that we may try to reason about the relation of the three to the two as if there were one idea on each side as there is one word. What we can say is that if for convenience we think of the body of received ethical custom as morality and the body of speculative principles as morals, each of these, as well as law in each of its senses, is an agency of social control. Partly their spheres overlap and in the common area they reinforce or ought to reinforce each other. Partly they deal with matters exclusively in their own domain, where nevertheless they may and do influence each other. But beyond this general statement one cannot go without distinguishing the different meanings of each word.

Today, in my judgment, the most important problem which confronts the jurist is the theory of interests. A legal system attains the ends of the legal order (1) by recognizing certain interests, individual, public, and social; (2) by defining the limits within which these interests shall be recognized legally and given effect through legal precepts; and (3) by endeavoring to secure the interests so recognized within the defined limits. I should define an interest, for the present purpose, as a demand or desire which human beings either individually or in groups or in associations or in relations, seek to satisfy, of which, therefore, the ordering of human relations must take account. This needs to be put psychologically, but we must avoid the controverted questions of group psychology. It is not group demands or desires, but the strivings of men in (or perhaps one should say through) groups and associations and relations to satisfy certain demands or desires. The legal order or the law does not create these interests. There is this much truth in the old idea of a state of nature and theory of natural rights, namely, that interests in this sense would exist if there were no legal order but were some other form of social control, and no body

of authoritative guides to conduct or decision. Conflicts or competition between interests arise because of the competition of individuals with each other, the competition of groups or societies of men with each other, and the competition of individuals with such groups or societies, in the endeavor to satisfy human wants. The law, then, does not create these interests. But it classifies them and recognizes a larger or smaller number. Also it defines the extent to which it will give effect to these interests which it recognizes. It may do this in view of other interests. These other interests may be directly recognized and limited or secured, for example, by creating a legal right enforceable by action at law, or by a legal power such as the power of the wife to pledge the husband's credit for necessaries, so that the limits of the right or power must be fixed. For example, the right of reputation is limited by the privilege of confidential communication, and the power of the wife is limited to cases of living apart without her fault. Or the extent to which it will give effect to recognized interests may be limited in view of other interests which get only indirect recognition through limitations imposed on expressly recognized interests. For example, at common law the interest of the child is indirectly recognized by limiting the father's privilege of correction. Or the extent to which legally recognized interests are given effect may be limited in view of the possibilities of effectively securing them through the legal order. Next, the legal order devises means for securing interests when recognized and within the defined limits.

Hence in determining the scope and subject matter of the legal system we have to consider five things: (1) we must take an inventory of the interests which press for recognition and must generalize them and classify them; (2) we must select and determine the interests which the law should recognize and seek to secure; (3) we must fix the limits of securing the interests so selected—this, for example, is the whole problem in the secondary boycott cases; (4) we must consider the means by which the law

may secure interests when recognized and delimited, that is, we must take account of the limitations upon effective legal action which may preclude complete recognition or complete securing of interests which otherwise we seek to secure, as, for example, in the case of the rights of husband and wife to consortium as against each other; (5) in order to do these things we must work out principles of valuation of interests. The chief importance of these principles is in determining what interests to recognize, or, in other words, in selection of interests to be recognized. But we must use these principles also in fixing the limits of securing recognized interests, and fixing upon the means of securing interests, and in judging of the weight to be accorded in any given case to the practical limitations upon effective legal action.

SELECTED BIBLIOGRAPHY

Bentham, Jeremy: The Theory of Legislation
Berolzheimer, Fritz: The World's Legal Philosophers, 1912
Cordozo, B. N.: The Nature of the Judicial Process, 1921
Cohen, M. R.: Law and the Social Order, 1933
Frankfurter, F.: Law and Politics, 1939
Hegel, G. W. F.: Philosophy of Right
Holmes, O. W.: The Judicial Opinions of Oliver Wendell Holmes, 1940
Jhering, Rudolf: The Struggle for Law, 1879
Kohler, J.: Philosophy of Law, 1914
Laski, H.: The State in Theory and Practice, 1935
Pound, Roscoe: Introduction to the Philosophy of Law, 1922
Stammler, Rudolf: The Theory of Justice, 1925
My Philosophy of Law (A Symposium), 1941

PHILOSOPHY OF HISTORY

By John Elof Boodin

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By John Elof Boodin

In a broad sense everything is historic. It is part of a temporal order of events. There is astronomical history, geological history, biological history, cultural history. Generally, when we speak of history, we have in mind human history or rather human histories, since we are far from having a unified history of humanity. When we examine the concept of history, we find that it has a dual meaning. It may mean the actual order of events, independent of an observer. Or it may mean the order of events for an interpreter. Naive realists have held to the former meaning. Idealists have held to the latter meaning. In fact, both meanings are involved in history as knowledge. There can be no knowledge except through selection and interpretation. Some philosophers talk as though such things as tables and chairs were directly revealed. What is directly revealed is their stupidity. There can be no photographic history; and if there could be, it would be useless because it would be as confused as the material itself. The reconstruction of history is more like plastic surgery than photography. While historical knowledge, like all knowledge, involves interpretation, it *means* an order of events which is objective to the interpreter. Else history could not be distinguished from fiction. Indeed, so large a role has interpretation played that it is somewhat difficult to distinguish between fact and fiction. What is the historic significance of Troy? A generation ago historians might have been inclined to regard Homer's Troy as fiction, but the archeologists have located it and a whole procession of Troys. But for the most part Homer's Troy is imaginative interpretation. Science, too, has its fictions. But it aims at

objective fact and succeeds more and more in reaching objective fact. Unless there are objective data, whether in the physical sciences or history, there can be no criterion of knowledge. In either case, there must be creative interpretation on the basis of hitherto attained knowledge. It must be interpretation guided by the facts of experience and open to revision on the basis of experience. Science, too, is a part of hitsory. While physics and chemistry can abstract from history because the laws of physical nature in our epoch can be taken as constant, our hypotheses are part of history and must be understood in their historic context. That is true even of mathematics because there is progress in mathematics.

What is the relation of philosophy to history? Can there be a philosophy of history? We may compare philosophy of history with philosophy of science. In each case we find a great deal of specialization in the progress of knowledge. In the early stages, it was not necessary to distinguish between science and sciences. In the same way there has been specialization in history, and it becomes necessary to survey the general field if we are going to see the meaning of history. We may say, then, that philosophy deals with the general aspects of science or history.

One of those aspects is that of methodology. Philosophy can furnish the criticism of methodology, and in that way show the possibility of method and the limitations of method. Whether there are differences between methods in the sciences and in history, we need not discuss here. In either case, we must use hypotheses to try to interpret empirical data. There are, however, characteristics peculiar to the content of history. History has a disadvantage as compared to the physical sciences, in that historical processes are irreversible, while the processes with which the physical sciences deal are reversible for the purpose of description. That does not mean that the processes of physical nature are absolutely reversible because there is entropy, for one thing. Although the processes with which history deals are irreversible, they have recurrent characters. If it were

not so, we could have no customs, institutions, or social sciences. The historian has an advantage over physical science in that he can know the processes with which he deals from the inside, as an agent, while in physical science we are outside spectators. In history we deal with human wills, in their conflicts and cooperation, and we have an intimate knowledge of human wills. To say that we have an intimate knowledge does not mean adequate knowledge. We should not need a science of psychology in that case. In history we are dealing with macroscopic events. The fundamental causes in history are personalities. Only individuals are originative causes, not individuals as abstractions but individuals as conditioned by group relations, as well as being constitutive factors. They must be understood in their matrix. In human history we can to a certain extent follow the causal transitions, but in the complexities of events we may have to employ statistical methods. That does not mean that statistics is a substitute for causality. That would be confusion of types. Statistics is a method of knowledge, not of action.

History deals with events. But an event by itself is not history. That Caesar crossed the Rubicon in 49 B.C. is an event but it is the temporal setting—the conflicts leading up to the event and the consequences of the event—which makes history. An event is a selection, an abstraction from the matrix of history, and has significance only in its connectedness. We must further recognize the complexity of history. History is not a linear series of events. There is the interaction of various series. History, moreover, has depth as well as surface. We must take account of vertical relations as well as sequence. As psycho-analysis has shown, those vertical relations may be largely unsuspected by the agent.

Human history is creative or emergent. The historian attempts to survey time but he is also part of time. He is conditioned by his time and place in the movement of history with its milieu of interests. It is an old saying, *Veritas filia temporis* (Truth is the daughter of time.)

There is a certain relativity about interpreting history, since we must interpret it from our own perspective. But we must not be dogmatic about truth terminating with us. We must try to respect the objective connections so far as they are indicated by the material. There are perspectives in the past as well as to the past.

We must take time seriously when we study history. We have been too much dominated by the quantitative fictions of the physical sciences. Time is change and emergence. The measurement of time is secondary and artificial. We do not live by the clock, though it is socially convenient. Time is life and life overflows our artificial divisions. We divide time into past, present, and future. But these are not separate compartments of history. They have only functional significance. History is life and life moves as a whole. It moves with the impetus of the past but it moves toward realization. The present is pregnant with the future. We can look backward on the passage of events as from the stern of a ship. But life is forward-looking, the direction is determined by the future as well as by the past. To understand an embryo we must be able to project its future as well as its past. When we speak, there is a feeling of what we are going to say, and this determines what we say. The present is not a point or even a block but is the dynamic tension of the progression. The present duration is not to be measured by the series of beats which we can grasp in one perception any more than the coexistent spatial world is to be measured by the number of things to which we can attend at once. The present is the flowing, cumulative life which congeals into memory and habit at one end but pushes forward into action at the other. The past in so far as it exists persists into the present, with a context of its own, yet integrated into the ongoing life. I am not just the experience of a fraction of a second or of a few seconds. I am all that I have lived and now live and the future that I strive for. The future is the emergent completion of the pattern of what I have been and now am, as the egg and the embryonic

stages and maturity are but the expression of one creative life. This is true of a people, of a species, as well as of an individual life.

It has generally been assumed by historians that the past is closed and that, therefore, we can know the past. Others have assumed that history is contemporaneous history and that we only know the present. It is generally supposed that the future is unknown. Yet the purpose of studying history is to orient ourselves to the future, that is, to define the future. Life must act. Life cannot be split into past, present, and future. Life is indivisible. It is not true that the past is closed. The past is eternal only as an abstraction. The past completes itself in the course of history as the movements of a symphony are completed in further movements. We do not in any absolute sense know what we have been any more than we know what we are, because what we have been and what we are owes its significance in part to what succeeds. To know what we have been and what we are means to know what we become, which is a creative fact. A deed may be good or bad in relation to later deeds. The reality of the past lies in its making of the present, and its significance must be found in its context with the present and the future. Dates, being numbers, have an abstract eternity, but dates are mnemonic devices. They do not constitute history. We can have history without dates, as is evident in biological and geological history. It is the cumulative change, with its inherent order, which is history. It is a truism to say that we live and think in the present. But what is the present? The present is not closed. It is the forward wave of the past. It carries the meaning of the past and is itself open to the future. It requires the perspective of the future in order to be fully understood.

We must act on faith. To some extent nature repeats itself, or we could have no prediction, but it repeats itself with variations. We know but little of what we are. To know what we are would be to know what we have been and what we are going to be. Life is a risk. We make

plans, but these plans come to have new meaning, even as we try to act them out. That does not mean that we should not plan. We are better off for thinking and planning. It means that we should not be dogmatic. We should be willing to revise our plans. Life moves on. Life is more than we. "There is a destiny that shapes our ends rough hew them as we will." But we are a creative part of that destiny, our action counts. At every stage "we are more than we are and are wiser than we know," because we are part of a stream of life which has implications beyond what we can see. The embryo is more than an embryo and can be understood only as we follow its development to the man. But the man is part of the history of life, and the end is not yet. At best our human perspective is truncated. We require long perspectives to recognize the order in change. On a near view it may seem mere confusion and tragedy. To those that lived in the transition from ancient civilization to the medieval, it could not have been apparent that a new civilization was being born. In the present crisis everything seems very confused, but Hitler too will pass as did Attila and Jenghis Khan. What will follow depends on us.

In the relativity of history, what truth can there be in our present insight? In the passage of time everything does not pass. Let us learn from the past. No real insight into relations or values is lost in history. The golden rule has persisted through the ages, because it makes life livable. The Pythagorean insight that the universe is amenable to number, the Platonic insight that there is form and measure in nature, Aristotle's conception of movement from the potential to the actual—these insights are not lost, though the Pythagorean conception of number was limited to cardinals, though the Platonic conception of form was abstracted from time, and though Aristotle's conception of movement from the potential to the actual was based upon routine and failed to recognize creativeness. It is a mistake to suppose that the Newtonian conception of gravitation lost its significance with Einstein. It was incorporated by

Einstein as a limiting concept of a more general formulation. And so on into the future. What is significant now will be integrated into wider perspectives. That is the career of truth in our world.

Human history is cumulative to a certain degree. There could be no history unless there were conservation of experience in the way of habit and tradition. But that does not mean that history is absolutely cumulative. The tragic fact is that history is destruction as well as cumulation. Whole civilizations have perished with scarcely anything to show for them.

Human history is concerned with values as well as with facts, and the two are inseparable. To understand human history we must discover what men strive for. Values enter into the texture of history; they are objective causes. But they are also subjective factors in that they determine the selection by the historian; and the historian must be on his guard lest he confuse his own bias with the causes of history.

History has external relations as well as internal relations. To understand the moments of history we must consider the spatial relations as well as the temporal. While distance has been largely overcome by modern science, it makes a difference whether men meet face to face in personal relations or at a distance. There is a reality about face to face relations that cannot be had otherwise. The number of individuals concerned and their distribution are important factors. Human culture has flourished best in comparatively small units such as ancient Athens or renaissance Florence where there were intimate interactions of the bearers of culture. There are also conditioning physical factors as geographical relations, climate and soil which have played an important part. But the tendency has been to exaggerate the physical conditions. They furnish problems which man is challenged to meet. Man is not just a passive product of circumstances, he is a creative factor and to a large extent has made over his environment. And so we

find men living in all sorts of climates, in the arctic regions, in the tropics, and especially in the intermediate zones.

Human history is rhythmic. This fact has been stressed by men like Vico, Spengler and others. They have compared human groups, such as nations, to a human organism. As the human organism lives through childhood, adolescence, maturity, and old age, so national cultures are supposed to live through such definite stages. The analogy is faulty. A nation does not consist of one individual but of a procession of individuals, and continually renews its organic life. It can become young again. While biologically the metaphor is faulty, psychologically it is true that nations live through periods of growth and tend to become stereotyped. But there is no absolute sequence, there is no inevitable decay. Some nations like the French and the British have passed through various stages or cycles. They have become stereotyped at times and then again have awakened to new cultural epochs. There is no absolute repetition in history. The Middle Ages do not repeat the Homeric epoch. The differences are more significant than the similarities. But with all the exaggeration on the part of the advocates of cycles there is a profound truth in the conception of the rhythmic character of history. We can distinguish epochs such as the Greek period, the Medieval period, the Renaissance. They do have identifiable characteristics. The mistake lies in isolating such periods. They are part of a continuous life. We cannot say that the Middle Ages began 476 A.D. and closed with 1450 A.D. It is more important to understand the transitions in history than to emphasize certain maximal stages, though the latter should not be ignored. There is a gestalt character about history, but the gestalt can only be understood in its historical matrix.

One aspect of human experience, which Shakespeare understood so well but which has been generally neglected, is that of timeliness. Huss was a great personality with great sincerity of purpose, but the events were not prepared, so he was burned at the stake, though it should not be forgotten that he helped prepare conditions for the future.

The Diet of Worms, 1521, might have made Luther another martyr, but the events conspired to produce a crisis which Luther set off. The causes which conspired to make the crisis were only in part religious. Several leaders in the Church—St. Bernard, Cusanus, Occam, among others—had tried to reform the Church, but they produced no crises. There were cooperative chains of causes—economic, political, intellectual—which had long been preparing and now combined with the religious fermentation to produce a crisis.

We have seen that philosophy of history, like philosophy of science, can contribute in two ways. It can furnish critical examination of methodology, and it can clarify overlapping problems which would not be dealt with in the specializations of science or history. These two functions would certainly justify philosophy of history, as they justify philosophy of science. But what writers on history generally have in mind with philosophy of history is some theory about history as a whole. The question is, is there a constructive principle, in terms of which we can understand the total movement of history? There have been several suggestions.

The interpretation of history in terms of providence has played and still plays a large role. St. Augustine in the *City of God* advanced the first complete philosophy of history in which the past, the present and the future are combined in one drama, a drama of sin and redemption. This philosophy dominated the Middle Ages. In the eighteenth century, the idea of progress was intended to supplant the idea of providence. The progress which was emphasized was intellectual, the progress of reason. This was thought to produce a general amelioration. The progress was conceived as linear with cumulative advance in one direction without end. In the nineteenth century the idea of evolution, as interpreted by Darwin and Spencer, seemed to give a new basis to the idea of progress. Of course it is necessary to select among evolutions, since there are several directions of evolution. We can select the direc-

tion which terminates in man, and regard man as the culmination of evolution. That may seem unduly anthropomorphic. Those who prefer another direction can choose that. But we no longer have the same confidence that time means progress, as the eighteenth and nineteenth centuries had.

With the middle of the nineteenth century, there appear serious attempts to explain history in a scientific way. There emerged physical theories which emphasize geography, climate, and food supply, as the explanation of social evolution. It should be said that Buckle, who was one of the pioneers in this field, did not neglect the human mind as a factor in social advance. The others were more dogmatic. There also arose economic theories, like that of Karl Marx, that try to account for social evolution in terms of economic factors, like production and distribution and the class struggle involved in production and distribution. While the base of the theory of Marx and Engels was materialistic, they recognized the importance of emergent factors like mind, institutions, ideals, as playing a genuine role. At best, physical and economic theories meet only part of the facts. The anthropological approach has become increasingly important in our effort to understand human society, and we have come to recognize the significant contributions made by so-called primitive man to human institutions. This recognition is leading to a larger perspective. But it is not a theory of history.

There have been various metaphysical theories to explain history. Hegel views history as the evolution of spirit through various stages in which there is a suggestion of contact with actual history by selecting some period in various cultures to illustrate the *a priori* scheme as conceived by him. Other efforts have tried to connect in a more evident way with the currents of recent thought. Bergson regards evolution as the manifestation of vital impulse, *élan vitale.* Advance in evolution for Bergson is due to successive waves of vital impulse which stabilize into customs

until a new wave comes. For S. Alexander, God is the impulse to advance through the various emergent levels of Space-Time, Deity being the creative emergence that is being born. These are only samples of types of effort to find a constructive principle in history. It is not possible to criticize these efforts in detail, but if the scientist is entitled to large constructions such as evolution, astronomical cosmology, the philosopher also is entitled to large perspectives. Though such large hypotheses cannot be verified in a way that a special limited hypothesis can be, they may, nevertheless, be useful in furnishing perspective for the smaller efforts. But we are now suspicious of speculative theories.

In human history the progression[1] during the past that we know has been most evident in culture. And the tendency has been to make the evolution of culture the basis of philosophy of history and to neglect the larger biological background. But we cannot say that biological evolution has stopped with the comparative stability of the anatomical form of man. The development of intelligence has involved the evolution of the cerebral conditions of mind and here there has been and is great variation. Social evolution must be seen as part of biological. The mistake of the speculative monists has not been in their feeling for the connectedness of history but in their anthropomorphism. Man is the heir of all the ages but not as a speculative dialectician who spins out the drama of history from his own assumptions.

Can there be an empirical approach? We find some large perspectives of connectedness in human history. One of the longest vistas is the technological form of progression, starting with the discovery of the use of fire and the making of tools. We must remember that the fundamental discoveries were made before any written records. Science today is a lineal descendant of the technological discoveries by primitive man. There can be no doubt that there has been technological progress. Another long perspective is moral evolution. By moral evolution I mean the attempt

of man to discover a formula for living together. It must have become obvious to primitive man as well as to us that technological discoveries are futile without moral advance. We cannot say that any particular part of the human race has shown any advantage in moral discovery. The Chinese and the Hindus seem to have done as well as the Occidentals. On the whole there seems to be evolving a greater respect for the dignity of the individual. Christianity is an important manifestation of this. A third type of connectedness is more inclusive than either of the above, namely, the evolution of life. We must remember that human culture is part of life and therefore dependent upon the evolution of life. Humanity is part of the history of life which is part of the history of the earth which is part of cosmic history. A philosophy of history must view human history within the whole. There is a time-form of humanity as a species. If humanity as a species has a history, is man still evolving? Will humanity as a species reach maturity as fishes and reptiles seem to have done? Or does man through his creative intelligence possess indefinite plasticity?

Is there evidence of direction in history as a whole?[2] It was a momentous insight, on the part of the early Greek pioneers, that reality is not only change but an order of change. In the one fragment which we possess from the great genius who laid the foundations of systematic enquiry into nature, namely Anaximander, we are told that things arise and pass away "according to the ordering of time." This pregnant idea was elaborated in an immortal way by Heraclitus, who saw a wisdom, a soul-fire, in nature, ordering the ceaseless change, regulating its exchanges and prescribing its path. No doubt Heraclitus was a great metaphysical poet. Modern science has given us some evidence of control in cosmic history. We can say with Plato that there is measure and number in nature. The building bricks of nature—electrons, protons, neutrons, and whatever others there may be—are measured in nature, and they fall into atomic patterns in the conditions of the cosmos. The

spectroscope gives us evidence of the repetition of material structure in the vast abysses of space-time wherever light can reach our instruments. And physics shows that the atomic structures fall into a natural series from one to ninety-two—the atomic number. Such measure and number on the elementary level of nature indicate that the cosmos, in all its pluralism and change, acts as a whole.

The series of atomic number is a time-form which in our epoch of nature has become stabilized through cosmic adjustment. Since we must view nature as history, and since we find evidence of creative control on the level of physical space-time, there is a presumption that this cosmic control is operative within the pluralism and contingencies of the increasing complexity of history. In the evolution of life, as well as the evolution of matter, nature must operate as a whole, otherwise the complicated conditions for life would be inconceivable. Life, as well as atomic matter, evolves according to certain patterns, though the enormous complexity of the relations makes cosmic control less patent than on the atomic level. Life radiates into a large number of directions. But if we follow any one history we can discern a continuous order of development in relation to the environment. This is particularly striking in histories that have run their course, like the Trilobites of which Perrin has established a complete fossil series. Gregory has exhibited a marvelous continuity in the progressive invention of patterns in the locomotor evolution of vertebrates. In those organic histories which have become stabilized, as with fishes and reptiles, the series of forms seems complete. In other histories, evolution is still plastic as evidenced by mutations which in turn may become fixed. Man has undergone considerable transformation in a million years but has become anatomically stabilized. The great transformation in the last ten thousand years has been in social heredity which in turn means a change in mental capacity. On the level of creative intelligence, man has shown marvelous plasticity in the last few thousand years; but patterns of thought, too, tend to become stabilized as shown in the syntax of language and the laws of logic.

How patterns of thought can become artificially stabilized is shown in the Middle Ages. But hitherto the stabilization of forms of thought has not become organically fixed. What seems clear is that cosmic order is manifest on the levels of life, through its various stages, as well as on the level of atomic matter. We cannot exhibit a structural order of life as a whole, as Moseley established atomic number,[3] for a great deal of past life has disappeared without any record and part of the perspective of life is in the future. But the evidence points to a cosmic order of life. Perhaps thought may be stabilized into a structural order, but that order would be habit which is the end of thought. Thought must be adventure. On all the levels of nature, as we know it, there is indeterminacy, pluralism, and the struggle for survival. But the struggle for survival does not create the patterns of matter, life or thought. It only determines which are viable under the conditions. Nature is not merely pluralistic and contingent. It is also formative. The formativeness is mediated through individuals. But life is more than individuals. The species-form has reality in evolution as well as individual form.[4] In both we have transformations.

The historical view of reality helps us to resolve some old dualisms. One of these dualisms is whether reality is matter or mind or both. The materialists maintain that reality is matter and that mind is a function of matter. The mentalists maintain that everything is mind at some stage and that matter, if it be allowed at all, is a decadent form of mind. But if we view reality as history, matter and mind are both manifestations of cosmic history, matter and mind being functions of organization. Nature is never merely matter or merely mind. Nature has a creative nisus which in its maximal development includes material and mental characteristics. Matter is an emergent character or set of characters of a certain history at a certain advance; mind is an emergent character or set of characters of a certain history at a certain advance. Matter is not more real than mind, any more than an egg is more real than a chicken. Even though matter stops short of the creative development which is mind,

it has a character to which mind is relevant. Otherwise we could have no science of nature. Matter is part of a world which has a nisus toward mind. Mind, on the other hand, needs a body in order to develop the conditions under which mind can function. It is the florescence of a process which, when complete in creative nature, is mind, including society which is an expression of mind. It is the time-whole which is reality and this time-whole exists in interaction with other time-wholes and in adjustment to the cosmic whole.

The end of our story is that reality is history, that change viewed in long perspectives indicates order. The order is most evident on the physical level of nature because this level in our epoch of nature is most stabilized. But we find order also indicated in the radiating evolution of life, especially where life has become established for the time being. We can see it, though less clearly, in the evolution of intelligence, where plasticity is at a maximum.[5] We are justified, I think, on the evidence in holding that the cosmos acts as a whole in the various transformations of its part histories. It is also reasonable to hold on the evidence that there is progression and that, in the small part of the world that we know best, this progression is toward more complexity of life, culminating in creative intelligence. The climax does not necessarily mean the last stage in any one cosmic history, such as our earth. The climax of an individual life is not its senescence.

But can we see a goal toward which creation moves? Here we move beyond science into the realm of poetry and religion. An inspired cosmic poet says: "For we know that the whole creation groaneth and travaileth in pain together until now," striving to be "delivered from the bondage of corruption into the glorious liberty of the children of God." For St. Paul the cosmic process is justified in producing a society of saints, though the rest of the cosmos in some sense shares in the liberation. In some way, it has the satisfaction of evolving a higher quality of life. At any rate, St. Paul does not ignore the rest of the cosmos

nor does he minimize the pain and travail of the process.

Some of us believe that the freedom to realize personality in a cooperative society is an ideal worth living for and fighting for. It is a question of value. Individuality is not enough. Everything strives to persist *in esse suo,* to maintain itself. If you consult the individual, every individual is ultimate. That is true even of inorganic nature, but it is a felt fact in the realm of life. The amoeba, the worm, the Neanderthal man, strive to live. Is it the type that is important? But it must be the type of individuals. Historically all individuals have their place. But somehow individuals in the cosmic process strive to transcend themselves, though they do not know it. We, too, are striving somehow to transcend ourselves. We are part of a nisus, though we can not define it. The chrysalis is striving somehow to liberate itself. It feels the change coming, but it does not yet know what it is to be a butterfly. There is in nature the urge to completion. There is a sense of direction, of ought, in nature from the seed to its maturity in the individual and from species to species in the racial movement. We are part of a cosmic evolution and we must strive as we can through thinking and through feeling to find our way. And we must suffer for our failures in order that we may find a better way.

I confess that, though I believe that the cosmos is a whole and acts as a whole through the multiplicity of histories, I do not understand what sort of a whole it is. It is true that a tree must be known through its fruit. But what is the fruit? I like to dwell on the creation of beauty and order. And there is some beauty and order. But what about the disorder? Perhaps blindness and chance are part of the evolution of order. But there is so much disorder and suffering that seem to lead nowhere. Without plurality and struggle it does not seem possible to have a world that is worth while. But what about all the fruitless struggle? What about the enormous waste in order that life may go on at all—millions of seeds that one may reproduce, millions of lives that a very small part may

show quality? And what about the insanity of selfishness and lust for power which create untold misery? "The whole creation groaneth and travaileth together until now"—that seems certain. "The glorious liberty of the children of God," of free creative personalities, working to realize a new order and a new happiness—that is something we must strive to bring to pass. And this striving is part of the cosmos, its urge in us. It is, I believe, its deepest urge.[6]

1. I say progression rather than progress because sometimes evolution has been decadence.
2. See *Man in his World,* 1937, University of California Press; *The Social Mind,* 1939, Chapters I, XIII, XIV.
3. I would not give the impression that atomic number has been absolutely fixed. There may have been elements in nature of a higher number than 92. Such elements have been produced in the laboratory. There are one or two intermediate elements of a very unstable character that have not yet been found in nature but have been produced in the laboratory. It has been suggested that they may have disappeared. In the realm of life, with all the losses, the record is very impressive. A vast range of primitive forms of life which could have left no record have persisted and so are contemporary.
4. In Plato's *Timaeus* the Demiurge creates the form of the race and the forms of individuals.
5. We can select cultural series that show remarkable cumulative order, as for example the development of Western thought from the sixth century B. C. in Greece; and more especially the development of science during the last three hundred years. The latter development was, for so great a mind as C. S. Peirce, a convincing argument for the existence of God. It certainly could not be accounted for on the basis of chance. It is no argument against this view that the devil has made very efficient use of the results of science. We have it on very good authority that the devil can quote Scripture.
6. I have devoted a great deal of energy to show the reality of time and history, first *analytically* in my doctor's thesis, *A Theory of Time,* Harvard, 1899 (not printed but available at the University of California at Los Angeles, at Harvard and in the British Museum); *Time and Reality,* 1904, Psychological Review Monograph, No. 26; part IV of *A Realistic Universe,* Macmillan, 1916, 1931; and also *synthetically* in connection with form or system in *A Realistic Universe,* esp. chapters III, XVII and XVIII; and more especially in connection with space-time, form and evolution in *Cosmic Evolution,* Macmillan, 1925, esp. chapters III and VIII; *Three Interpretations of the Universe,* Macmillan, 1934, chapters IV, V and VI (esp. V); *God,* Macmillan, 1934, esp. chapter VI; "Cosmic Implications of Normative Structure," Proceedings, Ninth International Congress of Philosophy, Paris, 1937; included in *Man in his World,* University of California Press, 1939; "A Revolution in Metaphysics and Science," Philosophy of Science,

1938; *The Social Mind,* Macmillan, 1939, esp. chapters I, XIII, XIV. I have tried for over forty years to develop a synoptic view of the universe, but most of my colleagues have been interested in special problems, lately in language, including formal logic—according to O. Spengler, the last stage of decadence. It would be clever to remark that when philosophers have nothing to say they talk about language; but the formal interest has its place, too, if it is not taken to be the whole of philosophy.

SELECTED BIBLIOGRAPHY

Berdyayev, N. A.: The Meaning of History, 1936
Bergson, H.: Two Sources of Morality and Religion, transl. 1935
Boodin, J. E.: Man in His World, 1939
Boodin, J. E.: The Social Mind, 1939
Bury, J. B.: The Idea of Progress, 1920
Cheyney, E. P.: Law in History, 1927
Croce, Benedetto: History as the Story of Liberty, 1941
Hegel, G. W. F.: Lectures on the Philosophy of History
Oakeley, H. D.: History and the Self, 1934
Klibansky, R. and Paton, H. J.: eds. Philosophy and History (essays presented to E. Cassirer), 1936
Mandelbaum, M. H.: The Problem of Historical Knowledge, 1938
Miller, Hugh: History and Science, 1939
Scheler, Max: Mensch und Geschichte, 1929
Schlegel, F. von: The Philosophy of History
Sorokin, P. A.: Social and Cultural Dynamics, 4 vols., 1937-1941
Spengler, Oswald: The Decline of the West
Teggart, F. J.: Theory and Process of History, 1941

PHILOSOPHY OF SCIENCE

By Victor F. Lenzen

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THE TERM SCIENCE denotes a critical activity of discovery as well as the systematic knowledge founded thereon. Problems of philosophy of science are: first, the structure of science, that is, the method and form of scientific knowledge; second, the significance of science for practice and knowledge of reality.

I

KNOWLEDGE is a constituent of human experience; science is critically controlled and ordered knowledge. The field of a science may be selected from diverse realms of experience; physical phenomena, processes of life, and social institutions may all be objects of scientific study. There has been a disposition to restrict the term science to the natural sciences, but its contemporary application is sometimes extended to the philosophical disciplines, such as the science of value. The universality of the scientific program is manifested in the continual attempt to apply scientific method to new realms of experience. Science, therefore, is not to be defined in terms of a specific subject matter. Science is characterized by the method and form of its knowledge; by the control of data, formulation of generalities, and the achievement of systematic form.

The basic fact about scientific knowledge is that it is a mode of representation of a subject matter by signs. The theory of signs has been set forth in a monograph by C. W. Morris. He distinguishes between semantics, the study of the relation of signs to objects; pragmatics, that of signs to interpreters; and syntactics, that of signs to other signs. The analysis of symbolic representation of things and events is the recurrent theme of works such as the one on the logical

structure of science by A. C. Benjamin. For this essay I assume that the general process of representation by symbols or other signs is known, and shall devote myself to characteristic scientific procedure and knowledge. Carnap has described the problem of philosophy of science as the syntactical structure of the language of science. In this essay I shall especially direct my attention to what Morris calls the semantical dimension of scientific semiosis.

An analysis of the procedure and form of science is appropriately directed to natural science as typical. Nature is the manifold of events in space and time; the subject matter of natural science is given in perceptions of common phenomena. The datum of perception has a vividness that usually distinguishes it from imagery, but the decisive criterion for correctness of perception is coherence with past and future perceptions. In a stage of accumulated knowledge perception is acknowledged to demonstrate the existence of relatively permanent objects, the realm of nature. Scientific inquiry is initially directed to the analysis and description of natural things in the status of perceptible objects. For example, if a specimen of a new kind of mineral is discovered, the task of scientific description is to record its place of occurrence, to specify its properties, and to name it. The mineral is first characterized by superficial qualities—for example, gold is described as yellow, lustrous and heavy—but physical and chemical analyses yield a more precise description. By the process of re-definition, or successive definition, a precise description of an object denoted by a crudely defined concept is transformed into the definition of an exact concept. Descriptions of perceptible objects with the aid of concepts furnish the data for the systems of classification of the descriptive natural sciences.

The specific characteristic of natural science is the formulation of laws that express uniformities in perceptible phenomena. A typical physical phenomenon is the collision of two bodies, during which the change in momentum of one body is correlated with the change in momentum of the other

with which it is in contact. This example of correlation of events contiguous in space and contemporaneous in time provides the prototype of causality as a functional relation. It has been found possible to represent large-scale phenomena by relatively simple determinist laws of correlation that serve as instruments of prediction.

However, a set of events may manifest irregularity, or randomness, the definition of which has been a problem in theory of probability. Irregular events are characterized as causally independent; no functional relation can be found between them that provides a basis for prediction of an individual event. Such irregular events are exemplified by the states of molecular motion of classical kinetic theory, in which irregularity was assumed to be founded upon regularity. In quantum mechanics, however, irregularity is accepted as fundamental. The results of individual observations on atomic systems are, except in special cases, predictable only with a probability defined as relative frequency. In principle, one can always organize a new result with past observations, but the functional relation so obtained would not serve to predict future events. Although the interpretation of quantum mechanics demands the assumption that irregularity is fundamental in the observation of atomic systems, Planck and Einstein have expressed hope that future developments will demonstrate that the statistics of atomic phenomena are founded on regularities. It is of interest to quote D. J. Struik who asserts, "Statistical regularity is a result of causal relationship. No probability without causality."

Phenomena are complex and hence scientific procedure involves the resolution of processes into component functional relations. Such resolution requires experimentation, in which factors in a natural process are isolated by holding constant some variables and controlling the values of selected ones. Thus in an experiment on gases one may hold the temperature constant and determine that the pressure varies inversely as the volume. Again, one may hold the volume constant and find that the pressure increases linearly with the temperature. In order to express the conditions that must be controlled in

order that a functional relation may be found exemplified, a law should be expressed in the conditional form; for example, if the temperature of a gas is held constant, the pressure varies inversely as the volume. The conditions for the isolated exemplification of a law may be practically impossible of realization. In discussions of the principle of inertia, which states that if a body is acted upon by no forces it moves with uniform motion, one usually remarks that it is impossible to find a moving body that is free from the action of force.

In the early stages of a science regularities in phenomena may be discovered fortuitously. In a developed science controlled experimentation requires guidance by hypotheses. Hypotheses also occur in science as the foundation of a systematic theory from which consequences are deduced that are tested by observation. In Newton's theory the law of gravitation initially was an hypothesis from which were derived laws of planetary motion that Kepler had formulated from records of observations.

The initial data of science are furnished by qualitative description. Such representation, however, is supplemented where possible by quantitative data. Indeed, the introduction of exact methods in science consists primarily in the replacement of indefinite qualitative concepts by definite concepts of physical quantities. The concept of a physical quantity is defined by means of an experimentally controlled procedure. Thus the elastic constants of a material are assigned on the basis of experiments on resistance to deformation. In general a physical property is attributed on the basis of the action of the object in some controlled situation. The operational definition of physical concepts was effectively employed by Einstein in creating the theory of relativity, but general recognition of the procedure owes much to the exposition by P. W. Bridgman. I shall exemplify this method by a discussion of weight.

Suppose that one perceives a body at rest upon a table. We do not directly perceive the weight of the body, but as-

sign this physical property to it in terms of the response of an appropriate instrument to its action. The simplest apparatus is the hand by which muscular action is applied to lift the body. A crude concept of weight may be defined by the statement that muscular action is required to balance it. The definition interprets the result of an experiment by a principle and hence weight is appropriately called a construct. A scale of magnitudes of weight may be based on intensity of muscular sensation. Now the measurement of weight by the hand lacks precise reproducibility. A better apparatus, known to antiquity, is the beam balance which consists essentially of a lever with equal arms. If two bodies suspended respectively from the ends maintain the lever horizontal, the bodies are postulated to be equal in weight. A body that balances two equal weights is postulated to have twice the weight of each. By extending this procedure one may build a set of bodies possessing weights that are assigned numerical measures relative to a unit. The weight of any body can then be measured in terms of the unit by the balance. In these measurements the results are interpreted by a principle of the lever which becomes a special case of the principle of moments in a developed system of statics. A proposition of science thus plays the role of a definition that is determined by convention. But conventions are adapted to experience; the definition of weight in terms of the lever is useful for the representation of nature because the same results are obtained regardless of the qualitative characteristics of the balance and the time and place of the measurement. In the definition of a construct such as weight a pattern discerned among objects of perception is symbolized. Thus a generalization from experience is in effect transformed by convention into a definition of weight. It may be added that the result of a measurement is usually determined from the perception of space-time coincidence. Eddington has expressed this fact in the statement that measurements are pointer-readings.

Quantitative data facilitate the formulation of laws in mathematical terms. The term mathematical designates the deductive exposition of a science. Ancient branches of mathe-

matics developed out of laws expressing pervasive properties of natural things. Thus cardinal arithmetic was founded on laws characterizing the composition of collections, and geometry developed out of laws employed in measuring spatial properties of solid bodies. The definiteness and simplicity of relations in space made possible the reduction, by the ancient Greeks, of geometrical propositions to a number of axioms. Euclidean geometry then provided the model for the deductive systems of mathematics. In consequence of modern philosophy of mathematics the axioms of a mathematical science have been deprived of concrete content and have become postulates that implicitly define the formal properties of conceptual objects in an abstract universe of discourse. If the order of data of a science exemplifies approximately the order defined by a mathematical system, the latter may be interpreted as applied mathematics, for example, mathematical physics. Thus science accepts the data of perception and for their interpretation rationally constructs conceptual systems.

The field of natural science is initially constituted by perceptible phenomena, but explanation extends the realm of nature by positing objects that are not perceptible in the usual sense of the term. A phenomenon may be explained as the effect of action by a body that later may be directly perceived. This procedure is exemplified by the perception of Neptune after its position had been predicted by the theory of perturbations. Vitamins were initially posited by hypotheses for the explanation of physiological phenomena and were then isolated. Similarly, genes were instrumental for explaining the laws of heredity and were then located in structures perceived through a microscope. In building microphysical theories, however, objects are posited that according to physical theory can be known only through their effects. The visual datum of a natural thing is ascribed to radiation that it emits or reflects. Scintillations on an appropriate screen, condensation tracks in a cloud chamber, and indications of Geiger counters are attributed to the ionizing action of electrified particles.

The only means of cognizing such hypothetical objects is through perceptible phenomena that they serve to explain. Accordingly, such objects have been viewed as fictions. Now the positing of microphysical elements is founded on the postulate that in an interaction between microphysical and macrophysical realms both factors have the same status in reality. Hence the reality ascribed to the microphysical realm depends on that accorded objects of perception. If the latter are only conceptual instruments, so are the former; if the latter are independently real in the sense of traditional metaphysics, so are the hypothetical objects of physical theory. Regardless of interpretation, the repeated confirmation of predictions made from hypotheses for microphysical objects eventually results in the acceptance of perceptions of specific phenomena as observations of such objects. The positing of hypothetical objects demonstrates the relativity of the concept of reality to theoretical schemes of explanation. The most general definition of reality for science is that it is the universe of discourse of a conceptual system that serves to correlate and predict, deterministically or statistically, the data of experience.

The goal of science is unity in knowledge. Progress towards this goal has been made by the reduction of physical phenomena, such as sound and heat, to mechanical processes. A more fruitful basis for a unified physics is offered by electromagnetic theory. However, the crucial problem in the program of unification of science is the relation of biology to physics. Like the latter science, biology must initially employ the concepts of common experience. Living things have spatio-temporal location and the phenomena in which they participate are described initially in terms of common qualitative concepts. The existence of sciences like biophysics and biochemistry demonstrates that the processes of life are resolvable at least in part into physico-chemical factors. Biology, however, has the specific problem of the nature of the indivisible, coordinated wholeness that is characteristic of organisms. During the nineteenth century the model for physical science was a mechanical system of interacting material

particles. Biologists justifiably contended that the phenomena of life could not be reduced to this type of mechanism. Hence there was created the modern theory of vitalism, according to which the characteristic self-repairing and self-reproducing activities of an organism are attributed to an entelechy or similar vital agent. Criticism from the mechanist standpoint undoubtedly has demonstrated that vitalist concepts have not satisfied the demand for explanation or guided the biologist to new discoveries. Meanwhile the mechanical conception of nature in its earlier meaning has been abandoned for physics. Physical phenomena have been reduced, at least partially, to electromagnetic processes. Quantum mechanics has further demonstrated the inadequacy of the former mechanical point of view. The outcome of these developments is that the program of physical science is analysis of phenomena into constituent functional relationships. But this is also the procedure of experimental biology. The abandonment of the self-restricted mechanism of nineteenth century physics and the introduction of experimental methods into biology render possible the acceptance of a unified method for biological and physical science. Indeed, J. B. S. Haldane has found in resonance phenomena of atomic physics concepts for the analysis of mind. Lancelot Hogben remarks, "In the light of Pavlov's work we can now envisage the possibility that the methods of physical science will one day claim the whole field of what can be properly called knowledge."

There remains the question whether or not the laws of biology will be reducible to those of a future de-mechanized physics. In would appear that the relation between the biological and physical that may be expected is one outlined by W. H. Werkmeister. He notes that in physical science new theories may include older theories as limiting cases, for example, relativist dynamics includes classical dynamics. Now biological processes have physico-chemical constituents, but are more complex than the latter. Hence one may expect that the laws of biology when adequately formulated will reduce to the laws of physics in the limit. Indeed, after the death of

an organism its processes are described completely in physico-chemical terms.

As a concluding topic in the analysis of the structure of science I shall examine the role of a principle of uniformity of nature. We have seen that the characteristic of science is the formulation of laws that represent uniformities in phenomena. A law is derived from particular observations by inductive inference, but it claims generality that provides the basis for predicting the results of future observations. Prediction is justified by the principle that regularities in phenomena are invariable in time. What is the ground of such a principle of invariance?

The attempt to found the principle on experience leads to an infinite regressus; it is contrary to the temper of the age to grant it a priori status. Of significance is the interpretation of a principle of uniformity by conventionalism. This interpretation may be explained by describing the procedure of dealing with exceptions to a law. Boyle's gas law, for example, was initially formulated from crude observations and then found to fail for more precise data. A functional relation in better accord with the later precise observations was devised by van der Waals who introduced parameters that depend on the gas. In principle, it is always possible to reconstruct a law by introducing new factors so that it applies to new data. The principle of uniformity then is an element in the definition of law. This definitional character of the principle has been set forth by Philipp Frank, who analyzes the law of causality in the form: if, in the course of time, the state A of the universe is once followed by the state B, then whenever A occurs B will follow it. He points out that this statement may be interpreted as a definition of the word "state," for if the law of causality is not confirmed for a system according to a given definition of state, we assign new state variables in order to secure confirmation.

The genesis of a principle of uniformity may be explained by the method of successive definition. That it has been possible to formulate invariant laws is a generalization from ex-

perience which has been transformed into the principle of uniformity as a definition. There remains, however, the problem of justifying the expectation that old experiments will continue to yield the same results and that revised laws will continue to hold for more refined experiments. In the last analysis the conventionalist interpretation of the principle of uniformity fails to justify the expectation that a specific functional relation will be exemplified in the future. Contemporary discussions recognize this limitation by redefining the problem of induction. Herbert Feigl distinguishes between the meaning and validity of the principle of induction. He contends that it is a regulative maxim, an operational rule. In the same spirit, Karl Popper maintains that the procedure of empirical science is not inductive inference from particular to general, but construction of hypotheses from which consequences are deduced that are tested by observation. Hans Reichenbach describes induction as a process of wagering on the future with the aid of propositions of probability as instruments of prediction. Finally, I quote Wittgenstein: "The process of induction is the process of assuming the simplest law that can be made to harmonize with our experience. This process, however, has no logical foundation but only a psychological one."

II

THE SIGNIFICANCE of science resides in its value for practice and knowledge of reality.

Natural science itself testifies to the extrinsic value of science for the conduct of life. Biology represents man as an organism that maintains itself by interacting with an environment. Man's adaptation to nature is facilitated by his ability to foresee and thereby control events. The discovery of uniformities in phenomena, upon which control is based, is initially prompted by instinctive curiosity. As his knowledge grows, man's sense of wonder concerning the nature of things develops into the scientific spirit. Although the foundation of science is the impulse to observe and explain, the

practical value of knowledge stimulates its acquisition. Among the ancient Babylonians and Egyptians regularities in the motions of celestial objects served for the direction of agriculture, geometry was useful in surveying, and items of mechanical knowledge were applied in architecture. Coming upon the historical scene after the seeds of science had been sown for several milleniums, the ancient Greeks garnered the harvest prepared for them and molded it into the form of science. Once embarked on the search for rational knowledge, science acquired a life of its own and the perfection of theoretical structure became an end in itself. The creative impulse of Greek science suffered a decline, but its ideals and methods guided the scientific revival during the dawn of the modern era. Copernicus was inspired to revolutionize astronomy by the Pythagorean ideal of a simple mathematical representation of celestial motions, and the theory of conic sections of Apollonius of Perga provided the conceptual tools for the analysis of motion by Kepler and Galileo. However, science was especially stimulated by the technological problems set by the development of new economic, social and political institutions. The requirements of navigation for voyages of discovery, the demand for machines by industries such as mining, the effort to improve the technique of firing projectiles, the requirements of transport by water gave impetus to the astronomical observation and development of mechanics characteristic of the sixteenth and seventeenth centuries. The significant contribution of Sir Francis Bacon was his encouragement of experimental philosophy for the purpose of controlling nature.

While the rise of modern science was stimulated by the requirements of practice, the modern era has been characterized by an ever increasing cultivation of pure science, and this development has made possible new achievements in practice. The utilization of science for the improvement of agriculture, industry and communication has transformed our mode of life. Criticism is now directed against science on the ground that it is being used to employ the forces of nature

against the welfare of humanity. Every culture, however, requires tools that implement natural forces, consequently the destruction of science would mean a return to barbarism. The correct answer to the criticism of the inhumane utilization of science is that, except in so far as knowledge is sought for its own sake, science is an extrinsic value. Natural science, at least, does not determine the intrinsic value of ends that are to be achieved by its application. Science may indicate how to realize an end, but does not furnish the test whether it is intrinsically good or bad. The spirit of science exacts the systematic representation of experience regardless of its extrinsic value.

Science as cultivated for its own sake contributes to knowledge of reality.

The impulse to explain was born with primitive man. He interpreted the phenomena of his environment as the manifestations of powers like his own. Primitive animism developed into the anthropomorphic conception of nature as exemplified by Greek mythology. The creation of science initiated a transition from the interpretation of nature as a realm of personal caprice to nature as the order of natural law. The development of science in ancient Greece was characterized by loss of faith in traditions about the gods as well as by speculations concerning the substance of natural things. However, the search for first principles of phenomena was supplemented by interpretation from normative points of view. Thus Aristotle taught that celestial motions occur in circular orbits which are the most perfect. In the mediaeval period the teleological interpretation of things was a primary interest. Modern science has been characterized by the abandonment of teleological interpretation for description and explanation in terms of natural law.

The creation of celestial mechanics by Newton and his successors gave rise to the conception of a world machine. An important problem of modern philosophy has been the role of the supernatural in a mechanical universe. Theological thought sought to adjust itself to the mechanical view of

nature and fashioned the deist conception of God. Newton recognized the function of God in creating the solar system, but subsequent theories of its origin further restricted the role of supernatural power. It may be recalled that Laplace told Napoleon that he had no need for God in his system of the world. Philosophers under the spell of the mechanical point of view expanded a theory of the material universe into materialism as a theory of reality. In the nineteenth century impetus was given to materialism in the form of naturalism by Darwin's theory of evolution. Man was represented as having evolved from a primitive condition to his present status as a rational being. It was but an extension of this mode of thought to characterize life as a product of nature. The impact of naturalism upon man's estimate of his position in the universe is exemplified by Bertrand Russell's eloquent expression of despair in his statement of a free man's worship.

It is not the task of philosophy of science to construct a theory of reality in which the place of nature is defined. But it is appropriate to criticize the improper metaphysical employment of scientific ideas. Now a tenet of naturalism is that nature is prior in time to our perception of it and even to life on earth. It appears to be implied by proponents of this doctrine that it is derived from science, but in fact naturalism presupposes a realist theory of knowledge. Science is limited in the kind of knowledge that it furnishes. Natural laws express regularities of relation between events in an abstract scheme the determinateness of which results from idealization. Indeed, it may be argued that the conceptual schemes of science are the products of thought only and not constituents of reality. One who seeks to explain mental phenomena by atomic processes must at least give thought to the view of Ernst Mach that the program is meaningless because an atom is only a conceptual construct that serves to order perceptions. But even if one assumes that a scientific scheme expresses a constituent of reality, there are limitations to naturalism. The laws of biological phenomena have not been

completely formulated and the relation between the living and non-living is not understood. In view of the abstract nature of scientific schemes, which are not even completed, it is evident that natural science can not pronounce judgment upon specific metaphysical doctrines such as those about the influence of supernatural agents on natural events.

Exposition of the inadequacy of science as a foundation for naturalism has not curbed a disposition to base metaphysical constructions upon new scientific theories. While biological thought during the nineteenth century contributed to naturalism, physical theories of the twentieth have inspired a revival of idealism. The way was prepared by the gradual replacement of the mechanical conception of nature by the program to assume electromagnetic processes as fundamental. Furthermore, the extensive mathematical elaboration of physical theories has called forth the idea that the world is the thought of God, the mathematician. Philipp Frank has especially criticized idealist inferences from these developments. An electromagnetic process is to be assigned the same sort of physical reality as a collision between material particles. The mathematical formulation of physical laws is as characteristic of Newtonian mechanics as the theories of relativity and quantum mechanics. The specific doctrines of relativity have been interpreted to support idealism. According to relativist theory our schemes for locating events in space and time are relative to the selected frame of reference; this is frequently stated in the form that space and time are relative to an observer. J. H. Jeans has declared that space and time are mental frameworks. Again, the conception of space-time as a continuum of events has facilitated the disintegration of the concept of matter as substance. But the idealist interpretation of relativity is not necessary. The relativity of space, time and other quantities to the observer is, precisely expressed, with respect to physical frames of reference, so that observers using the same frame would find the same values of particular quantities, except for errors of observation. Furthermore, the theory of relativity has introduced the concept of abso-

lute space-time with properties common to all observers. Events in space-time may be viewed as independent of mind as well as dependent.

Of especial interest are idealist arguments based on quantum mechanics. Eddington has drawn subjectivist conclusions from the circumstance that phenomena observed for microphysical systems depend on the method of observation. Calling his doctrine selective subjectivism, he proposes to derive all physical laws a priori from the constitution of the observer. However, in analyzing the process of observation one should distinguish the interaction between an object and some instrument upon which it acts from the perception of the effect by a human observer. Interference with an object occurs at the boundary between the object observed and the macrophysical apparatus. The final term of observation, perception, occurs through the medium of an organism in accordance with processes described in classical physics. The indeterminacy of results of observation has been held to provide a basis for freedom of the will. But unpredictable atomic events are subject to chance and this fact can hardly be of service to moral theory.

The status of nature as an object of science is not determined by specific scientific doctrines. The concepts of physics are definable in terms of experiments with perceptible apparatus that may be interpreted realistically or idealistically. The dependence of organisms upon an environment appears to justify the generalization that life emerged out of nature, but one may decide to interpret organisms as well as physical bodies as complexes of transient data. The concepts of physical process and evolution would then express correlations of perceptions. A decision on the status of nature can be based, not on the results of science, but only on general considerations of theory of knowledge.

What is the ontological status of a universe of scientific discourse? The physical world, which provides at least the framework of nature, is initially conceived to consist of perceptible bodies in space and time. Our problem is therefore

the status of objects of perception. Now perception is the interpretation of a sense-datum as the aspect of a natural thing. In all doctrines it is agreed that an object of veridical perception exists, or is real. The problem thus reduces to an examination of the concept of existence or reality.

The doctrine most acceptable to a strict empiricist is that an object is essentially a symbolic construct for the correlation of perceptions. Thus C. I. Lewis defines the concept of an object in terms of its predictive function for possible perceptions. Pascual Jordan has argued that this instrumentalist interpretation is supported by Bohr's theory of complementarity in atomic physics. The concepts employed to describe physical systems depend on experimental procedures which may be incompatible. In some experimental situations the concept of particle is appropriate, in others the concept of wave. In some situations position is precisely assigned, in others momentum. Physical concepts therefore are conceptual instruments which utilize a pattern abstracted from the realm of perceptible phenomena in order to correlate the results of observation by a mathematical scheme.

Moritz Schlick maintained that a theory of external objects that goes beyond the limits of consistent empiricism is devoid of sense, but philosophers generally have not accepted this view. A long tradition supports the doctrine of dualism according to which an independent natural thing originates processes that interact with an observer in producing the data of perception. Dualism was founded by the atomists of antiquity, and was adopted in the seventeenth century by Galileo, Descartes and Locke. It reconciles the demand for a reality independent of experience with the relativity of aspects to a perceiver. An important phase of modern philosophy has been the persistent attempt to overcome dualism. Empiricist criticism by Berkeley gave rise to subjective idealism, according to which an object is the complex of aspects that exist only as data of perception. Subjectivism has generally been rejected by philosophers, indeed, Berkeley in effect abandoned it in the doctrine that things have continued existence as percepts in the mind of God.

Contemporary theories of perception have been influenced by Mach's attempt to preserve the advantages of empiricism without implications of dependence on mind. Mach viewed an object as a symbol for a complex of neutral elements of sensation. By this doctrine of the neutrality of sense-data he sought to avoid the ontological problem but his solution is unstable. If it holds the object to be more than a symbolic parameter, the doctrine falls either on the side of realism or idealism. The assignment of neutral status to perceptual data prompted the construction of a neo-realist theory, according to which the object is a complex of independent aspects. In this theory reality becomes a complex of all possible aspects from all possible points of view for all possible observers, and perception is merely selection. The theory is appropriately stated in the form that all events have fixed location in four-dimensional space-time and are perceived when an observer progressing along his world line comes upon them.

Although Mach's concept of an object as a symbol for a complex of elements has received a realist interpretation, it lends itself to statements in subjectivist language. Herbert Dingle defines a physical object as an association of experiences which at any instant are together in space. As noted below, Eddington has adopted this statement for his doctrine of selective subjectivism.

The indecision of the scientist toward the problem may be illustrated by two examples. Planck has stated that early in his career he accepted the positivist doctrine of Mach, interpreted subjectivistically, but in maturity adopted the realist (dualist) position. Eddington, on the other hand, initially expounded dualism as a consequence of physics, but in a recent work states that after twenty years he has come to the view that physical reality is the rational correlation of elements of experience.

It has been argued that since one can not decide between idealism and realism empirically, the issue is illusory. A theory of objects, however, is a conceptual scheme for the

interpretation of data. Now in science it is generally possible to devise various conceptual schemes for a subject matter; the decision between them must be made in the light of principles such as that of simplicity. The same considerations hold in theory of knowledge. The subjectivist theory of objects commands the support of empiricists by its ascetic self-limitation to the data of perception. But the hypothesis of an object that generates data is analogous to the constructive hypotheses of atomism which satisfy a demand for identity in change. Although dualism has been under criticism, critics may reassert it in a new form. John Dewey holds that the light datum of a star presents a problem which is solved by ascribing it to a sun located many light-years distant in an extensive temporal-spatio continuum. The view of Helmholtz is worthy of note. He conceded the theoretical possibility of interpreting the facts of perception in terms of subjective idealism, but held that the realist (dualist) interpretation is the simplest one. Whether or not one concedes significance to the issue between realism and idealism the cautious philosopher of science can limit himself to the concept of nature as a scheme for the systematic correlation of experiences.

BIBLIOGRAPHY

Bavink, B.: Science and God, Trans. by H. S. Hatfield, G. Bell and Sons, London, 1933

Benjamin, A. C.: The Logical Structure of Science, Kegan Paul, Trench, Trubner and Co., London, 1931

Bohr, N.: Atomic Theory and the Description of Nature, Cambridge University Press, 1934

Bridgman, P. W.: The Logic of Modern Physics, The Macmillan Company, New York, 1927

Carnap, R.: The Logical Syntax of Language, Harcourt, Brace and Co., New York, 1937

Dewey, J.: Logic, Henry Holt, New York, 1938

Dingle, H.: Through Science to Philosophy, Clarendon Press, Oxford, 1937

Eddington, A. S.: The Philosophy of Physical Science, The Macmillan Company, New York, 1939

Feigl, H.: The Logical Character of the Principle of Induction, *Philosophy of Science,* vol. 1, p. 20, 1940

Frank, P.: Between Philosophy and Physics, Harvard University Press, Cambridge, 1941

Haldane, J. B. S.: Quantum Mechanics as a Basis for Biology, *Philosophy of Science,* Vol. 1, p. 78, 1934

Haldane, J. S.: The Philosophical Basis of Biology, Hodder and Stoughton Ltd., London, 1931

Helmholtz, H.: Die Tatsachen in der Wahrnehmung, In *Schriften zur Erkenntnistheorie,* Verlag von Julius Springer, Berlin, 1921

Hessen, B.: The Economic and Social Roots of Newton's Principia, In *Science at the Cross Roads,* Kniga, London, 1931

Hogben, L.: The Nature of Living Matter, Kegan Paul, Trench and Trubner and Co., London, 1930

Jeans, J. H.: The Mysterious Universe, The Macmillan Company, New York, 1930

Jordan, P.: Die Physik des 20. Jahrhunderts, Vieweg und Sohn, Braunschweig, 1936

Lenzen, V. F.: The Nature of Physical Theory, John Wiley and Sons, New York, 1931

Lenzen, V. F.: Procedures of Empirical Science, *International Encyclopedia of the Unity of Science,* Vol. 1, No. 5, University Chicago Press, 1938

Lewis, C. I.: Mind and the World-Order, Charles Scribner's Sons, New York, 1929

Mach, E.: The Science of Mechanics, Trans. by T. J. McCormack, Open Court Publishing Co., Chicago, 1919

Margenau, H.: Methodology of Physics, *Philosophy of Science,* Vol. 2, p. 48, 1935

Meyerson, E.: Identity and Reality, Trans. by K. Loewenberg, George Allen and Unwin Ltd., London, 1930

Morris, C. W.: Foundations of the Theory of Signs, *International Encyclopedia of the Unity of Science,* Vol. 1, No. 2, University of Chicago Press, 1938

Nagel, E.: Principles of the Theory of Probability, International Encyclopedia of the Unity of Science, Vol. 1, No. 6, University of Chicago Press, 1939

Planck, M.: Where is Science Going, Trans. by James Murphy, W. W. Norton, New York, 1932

Popper, K.: Logik der Forschung, Verlag von Julius Springer, Wien, 1935

Reichenbach, H.: Experience and Prediction, University of Chicago Press, 1938

Schlick, M.: Die Kausalitaet in der gegenwaertigen Physik, *Die Naturwissenschaften,* Vol. 19, p. 145, 1931

Stebbing, L. S.: Philosophy and the Physicists, Methuen and Co., London, 1937

Struik, D. J.: On the Foundation of the Theory of Probabilities. *Philosophy of Science,* Vol. 1, p. 50, 1934

Werkmeister, W. H.: A Philosophy of Science, Harper and Brothers, New York, 1940

Weyl, H.: Mind and Nature, University of Pennsylvania Press, Philadelphia, 1934

Wittgenstein, L.: Tractatus logico-philosophicus, Kegan Paul, Trench and Trubner Co., London, 1922

PHILOSOPHY OF LIFE

By Alfred N. Whitehead

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The status of life in Nature is the standing problem of philosophy and of science. Indeed, it is the central meeting point of all the strains of systematic thought, humanistic, naturalistic, philosophic. The very meaning of life is in doubt. When we understand it, we shall also understand its status in the world. But its essence and its status are alike baffling.

Of course, it is always possible to work one's self into a state of complete contentment with an ultimate irrationality. The popular positivistic philosophy adopts this attitude. The weakness of this positivism is the way in which we all welcome the detached fragments of explanation attained in our present stage of civilization. Suppose that a hundred thousand years ago our ancestors had been wise positivists. They sought for no reasons. What they had observed was sheer matter of fact. It was the development of no necessity. They would have searched for no reasons underlying facts immediately observed. Civilization would never have developed. Our varied powers of detailed observation of the world would have remained dormant. For the peculiarity of a reason is that the intellectual development of its consequences suggests consequences beyond the topics already observed. The extension of observation waits upon some dim apprehension of reasonable connection. For example, the observation of insects on flowers dimly suggests some congruity between the natures of insects and of flowers, and thus leads to a wealth of observation from which whole branches of science have developed. But a consistent positivist should be content with the observed facts—namely, insects visiting flowers. It is a fact of charming simplicity.

There is nothing further to be said upon the matter, according to the doctrine of a positivist. At present the scientific world is suffering from a bad attack of muddle-headed positivism, which arbitrarily applies its doctrine and arbitrarily escapes from it. The whole doctrine of life in Nature has suffered from this positivist taint. We are told that there is the routine described in physical and chemical formulae, and that in the process of Nature there is nothing else.

The origin of this persuasion is the dualism which gradually developed in European thought in respect to mind and Nature. At the beginning of the modern period Descartes expressed this dualism with the utmost distinctness. For him, there are material substances with spatial relations, and mental substances. The mental substances are external to the material substances. Neither type requires the other type for the completion of its essence. Their unexplained interrelations are unnecessary for their respective existences. In truth, this formulation of the problem in terms of minds and matter is unfortunate. It omits the lower forms of life, such as vegetation and the lower animal types. These forms touch upon human mentality at their highest, and upon inorganic Nature at their lowest.

The effect of this sharp division between Nature and life has poisoned all subsequent philosophy. Even when the co-ordinate existence of the two types of actualities is abandoned, there is no proper fusion of the two in most modern schools of thought. For some, Nature is mere appearance and mind is the sole reality. For others, physical Nature is the sole reality and mind is an epiphenomenon. Here the phrases "mere appearance" and "epiphenomenon" obviously carry the implication of slight importance for the understanding of the final nature of things.

The doctrine that I am maintaining is that neither physical Nature nor life can be understood unless we fuse them together as essential factors in the composition of "really real" things whose inter-connections and individual characters constitute the universe.

The first step in the argument must be to form some

concept of what life can mean. Also, we require that the deficiencies in our concept of physical Nature should be supplied by its fusion with life. And we require that, on the other hand, the notion of life should involve the notion of physical Nature.

Now as a first approximation the notion of life implies a certain absoluteness of self-enjoyment. This must mean a certain immediate individuality, which is a complex process of appropriating into a unity of existence the many data presented as relevant by the physical processes of Nature. Life implies the absolute, individual self-enjoyment arising out of this process of appropriation.

This concept of self-enjoyment does not exhaust that aspect of process here termed "life". Process for its intelligibility involves the notion of a creative activity belonging to the very essence of each occasion. It is the process of eliciting into actual being factors in the universe which antecedently to that process exist only in the mode of unrealized potentialities. The process of self-creation is the transformation of the potential into the actual, and the fact of such transformation includes the immediacy of self-enjoyment.

Thus, in conceiving the function of life in an occasion of experience, we must discriminate the actualized data presented by the antecedent world, the non-actualized potentialities which lie ready to promote their fusion into a new unity of experience, and the immediacy of self-enjoyment which belongs to the creative fusion of those data with those potentialities. This is the doctrine of the creative advance whereby it belongs to the essence of the universe, that it passes into a future. It is nonsense to conceive of Nature as a static fact, even for an instant devoid of duration. There is no Nature apart from transition, and there is no transition apart from temporal duration. This is the reason why the notion of an instant of time, conceived as a primary simple fact, is nonsense.

But even yet we have not exhausted the notion of creation which is essential to the understanding of Nature. We must

add yet another character to our description of life. This missing characteristic is "aim". By this term "aim" is meant the exclusion of the boundless wealth of alternative potentiality, and the inclusion of that definite factor of novelty which constitutes the selected way of entertaining those data in that process of unification. The aim is at that complex of feeling which is the enjoyment of those data in that way. "That way of enjoyment" is selected from the boundless wealth of alternatives. It has been aimed at for actualization in that process.

Thus, the characteristics of life are absolute self-enjoyment, creative activity, aim. Here "aim" evidently involves the entertainment of the purely ideal so as to be directive of the creative process. Also, the enjoyment belongs to the process and is not a characteristic of any static result. The aim is at the enjoyment belonging to the process.

The question at once arises as to whether this factor of life in Nature, as thus interpreted, corresponds to anything that we observe in Nature. All philosophy is an endeavour to obtain a self-consistent understanding of things observed. Thus, its development is guided in two ways—one is the demand for a coherent self-consistency, and the other is the elucidation of things observed. It is, therefore, our first task to compare the foregoing doctrine of life in Nature with our direct observations.

Without doubt the sort of observations most prominent in our conscious experience are the sense-impressions. Sight, hearing, taste, smell, touch constitute a rough list of our major modes of perception through the senses. But there are an indefinite set of obscure bodily feelings which form a background of feeling with items occasionally flashing into prominence. The peculiarity of sense-perception is its dual character, partly irrelevant to the body and partly referent to the body. In the case of sight, the irrelevance to the body is at its maximum. We look at the scenery, at a picture, or at an approaching car on the road, as an external presentation given for our mental entertainment or mental

anxiety. There it is, exposed to view. But, on reflexion, we elicit the underlying experience that we were seeing with our eyes. Usually this fact is not in explicit consciousness at the moment of perception. The bodily reference is recessive, the visible presentation is dominant. In the other modes of sensation the body is more prominent. There is great variation in this respect between the different modes. In any doctrine as to the information derived from sense-perception this dual reference—external reference and bodily reference—should be kept in mind. The current philosophic doctrines, mostly derived from Hume, are defective by reason of their neglect of bodily reference. Their vice is the deduction of a sharp-cut doctrine from an assumed sharp-cut mode of perception. The truth is that our sense-perceptions are extraordinarily vague and confused modes of experience. Also, there is every evidence that their prominent side of external reference is very superficial in its disclosure of the universe. It is important. For example, pragmatically a paving stone is a hard, solid, static, irremovable fact. This is what sense-perception, on its sharp-cut side, discloses. But if physical science be correct, this is a very superficial account of that portion of the universe which we call the paving stone. Modern physical science is the issue of a coordinated effort, sustained for more than three centuries, to understand those activities of Nature by reason of which the transitions of sense-perception occur.

Two conclusions are now abundantly clear. One is that sense-perception omits any discrimination of the fundamental activities within Nature. For example, consider the difference between the paving stone as perceived visually, or by falling upon it, and the molecular activities of the paving stone as described by the physicist. The second conclusion is the failure of science to endow its formulae for activity with any meaning. The divergence of the formulae about Nature from the appearance of Nature has robbed the formulae of any explanatory character. It has even robbed us of reason for believing that the past gives any ground for expectation of the future. In fact, science conceived as resting on mere

sense-perception, with no other source of observation, is bankrupt, so far as concerns its claim to self-sufficiency.

Science can find no individual enjoyment in Nature; science can find no aim in Nature; science can find no creativity in Nature; it finds mere rules of succession. These negations are true of natural science. They are inherent in its methodology. The reason for this blindness of physical science lies in the fact that such science only deals with half the evidence provided by human experience. It divides the seamless coat—or, to change the metaphor into a happier form, it examines the coat, which is superficial, and neglects the body, which is fundamental.

The disastrous separation of body and mind which has been fixed on European thought by Descartes is responsible for this blindness of science. In one sense the abstraction has been a happy one, in that it has allowed the simplest things to be considered first, for about ten generations.

Yet it is untrue to state that the general observation of mankind, in which sense-perception is only one factor, discloses no aim. The exact contrary is the case. All explanations of the sociological functionings of mankind include "aim" as an essential factor in explanation. For example, in a criminal trial where the evidence is circumstantial the demonstration of motive is one chief reliance of the prosecution. In such a trial would the defense plead the doctrine that purpose could not direct the motions of the body, and that to indict the chief for stealing was analogous to indicting the sun for rising? Again no statesman can conduct international relations without some estimate—implicit or explicit in his consciousness—of the types of patriotism respectively prevalent in various nations and in the statesmen of these nations. A lost dog can be seen trying to find his master or trying to find his way home. In fact we are *directly* conscious of our porposes as *directive* of our actions. Apart from such direction no doctrine could in any sense be acted upon. The notions entertained mentally would have no effect upon bodily actions. Thus, what happens would happen

in complete indifference to the entertainment of such notions.

Scientific research is completely dominated by the presupposition that mental functionings are not properly part of Nature. Accordingly it disregards all those mental antecendents which mankind habitually presuppose as effective in guiding cosmological functionings. As a method this procedure is entirely justifiable, provided that we recognize the limitations involved. These limitations are both obvious and undefined. The gradual eliciting of their definition is the hope of philosophy.

The points that I would emphasize are: First, that this sharp division between mentality and Nature has no ground in our fundamental observation. We find ourselves living within Nature. Second, I conclude that we should conceive mental operations as among the factors which make up the constitution of Nature. Third, that we should reject the notion of idle wheels in the process of Nature. Every factor which emerges makes a difference, and that difference can only be expressed in terms of the individual character of that factor. Fourth, that we have now the task of defining natural facts, so as to understand how mental occurrences are operative in conditioning the subsequent course of Nature.

All sense-perception is merely one outcome of the dependence of our experience upon bodily functionings. Thus, if we wish to understand the relation of our personal experience to the activities of Nature, the proper procedure is to examine the dependence of our personal experiences upon our personal bodies.

Let us ask about our overwhelming persuasions as to our own personal body-mind relation. In the first place, there is the claim to unity. The human individual is one fact, body and mind. This claim to unity is the fundamental fact, always presupposed, rarely explicitly formulated. I am experiencing and my body is mine. In the second place, the functioning of our body has a much wider influence than the mere production of sense-experience. We find ourselves

in a healthy enjoyment of life by reason of the healthy functionings of our internal organs—heart, lungs, bowels, kidneys, etc. The emotional state arises just because they are not providing any sense directly associated with themselves. Even in sight, we enjoy our vision because there is no eyestrain. Also, we enjoy our general state of life because we have no stomach-ache. I am insisting that the enjoyment of health, good or bad, is a positive feeling only casually associated with particular sensa. For example, you can enjoy the ease with which your eyes are functioning even when you are looking at a bad picture or a vulgar building. This direct feeling of the derivation of emotion from the body is among our fundamental experiences. There are emotions of various types—but every type of emotion is at least modified by derivation from the body. It is for physiologists to analyse in detail the modes of bodily functioning. For philosophy, the one fundamental fact is that the whole complexity of mental experience is either derived or modified by such functioning. Also, our basic feeling is this sense of derivation, which leads to our claim for unity, body and mind.

But our immediate experience also claims derivation from another source, and equally claims a unity founded upon this alternative source of derivation. This second source is our own state of mind directly preceding the immediate present of our conscious experience. A quarter of a second ago we were entertaining such and such ideas, we were enjoying such and such emotions, and we were making such and such observations of external fact. In our present state of mind we are continuing that previous state. The word "continuing" states only half the truth. In one sense it is too weak, and in another sense it overstates. It is too weak because we not only continue, but we claim absolute identity with, our previous state. It was our very identical self in that state of mind, which is, of course, the basis of our present experience a quarter of a second later. In another sense the word "continuing" overstates. For we do not quite continue in our preceding state of experience. New

elements have intervened. All of these new elements are provided by our bodily functionings. We fuse these new elements with the basic stuff of experience provided by our state of mind a quarter of a second ago. Also, as we have already agreed, we claim an identification with our body. Thus, our experience in the present discloses its own nature in two sources of derivation, namely, the body and the antecedent experiential functionings. Also, there is a claim for identification with each of these sources. The body is mine, and the antecedent experience is mine. Still more, there is only one ego, to claim the body and to claim the stream of experience. I submit that we have here the fundamental basic persuasion on which we found the whole practice of our existence. While we exist, body and soul are inescapable elements in our being, each with the full reality of our own immediate self. But neither body nor soul possess the sharp observational definition which at first sight we attribute to them. Our knowledge of the body places it as a complex unity of happenings within the larger field of Nature. But its demarcation from the rest of Nature is vague in the extreme. The body consists of the co-ordinated functionings of billions of molecules. It belongs to the structural essence of the body that, in an indefinite number of ways, it is always losing molecules and gaining molecules. When we consider the question with microscopic accuracy, there is no definite boundary to determine where the body begins and external Nature ends. Again, the body can lose whole limbs, and yet we claim identity with the same body. Also, the vital functions of the cells in the amputated limb ebb slowly. Indeed, the limb survives in separation from the body for an immense time compared to the internal vibratory periods of its molecules. Also, apart from such catastrophes, the body requires the environment in order to exist. Thus, there is a unity of the body with the environment, as well as a unity of body and soul into one person.

But in conceiving our personal identity we are apt to emphasize rather the soul than the body. The one individual

is that co-ordinated stream of personal experiences which is my thread of life or your thread of life. It is that succession of self-realization, each occasion with its direct memory of its past and with its anticipation of the future. That claim to enduring self-identity is our self-assertion of personal identity.

Yet, when we examine this notion of the soul, it discloses itself as even vaguer than our definition of the body. First, the continuity of the soul—so far as concerns consciousness—has to leap gaps in time. We sleep or we are stunned. And yet it is the same person who recovers consciousness. We trust to memory, and we ground our trust on the continuity of the functionings of Nature, more especially on the continuity of our body. Thus, Nature in general and the body in particular provide the stuff for the personal endurance of the soul. Again, there is a curious variation in the vividness of the successive occasions of the soul's existence. We are living at full stretch with a keen observation of external occurrence; then external attention dies away and we are lost in meditation; the meditation gradually weakens in vivid presentation—we doze; we dream; we sleep with a total lapse of the stream of consciousness. These functionings of the soul are diverse, variable, and discontinuous. The claim to the unity of the soul is analogous to the claim to the unity of the body, and is analogous to the claim to the unity of body and soul, and is analogous to the claim to the community of the body with an external Nature. It is the task of philosophic speculation to conceive the happenings of the universe so as to render understandable the outlook of physical science and to combine this outlook with these direct persuasions representing the basic facts upon which epistemology must build. The weakness of the epistemology of the eighteenth and nineteenth centuries was that it based itself purely upon a narrow formulation of sense-perception. Also, among the various modes of sensation, visual experience was picked out as the typical example. The result was to exclude all the really fundamental factors constituting our experience.

In such an epistemology we are far from the complex data which philosophic speculation has to account for in a system rendering the whole understandable. Consider the types of community of body and soul, of body and Nature, or successive occasions of bodily existence, or the soul's existence. These fundamental interconnections have one very remarkable characteristic. Let us ask what is the function of the external world for the stream of experience which constitutes the soul. This world, thus experienced, is the basic fact within those experiences. All the emotions, and purposes, and enjoyments, proper to the individual existence of the soul, are nothing other than the soul's reactions to this experienced world which lies at the base of the soul's existence. Thus, in a sense, the experienced world is one complex factor in the composition of many factors constituting the essence of the soul. We can phrase this shortly by saying that in one sense the world is in the soul.

But there is an antithetical doctrine balancing this primary truth. Namely, our experience of the world involves the exhibition of the soul itself as one of the components within the world. Thus, there is a dual aspect to the relationship of an occasion of experience as one relatum and the experienced world as another relatum. The world is included within the occasion in one sense, and the occasion is included in the world in another sense. For example, I am in the room, and the room is an item in my present experience. But my present experience is what I now am.

In this survey of the observational data in terms of which our philosophic cosmology must be founded, we have brought together the conclusions of physical science, and those habitual persuasions dominating the sociological functionings of mankind. These persuasions also guide the humanism of literature, of art, and of religion. Mere existence has never entered into the consciousness of man, except as the remote terminus of an abstraction in thought. Descartes' "Cogito, ergo sum" is wrongly translated, "I *think* therefore I am." It is never bare thought or bare existence that we are aware of. I find myself as essentially

a unity of emotions, enjoyments, hopes, fears, regrets, valuations of alternatives, decisions—all of them subjective reactions to the environment as active in my nature. My unity—which is Descartes' "I am"—is my process of shaping this welter of material into a consistent pattern of feelings. The individual enjoyment is what I am in my role of a natural activity, as I shape the activities of the environment into a new creation, which is myself at this moment; and yet, as being myself it is a continuation of the antecedent world. If we stress the role of the environment, this process is causation. If we stress the role of my immediate pattern of active enjoyment, this process is self-creation. If we stress the role of the conceptual anticipation of future whose existence is a necessity in the Nature of the present, this process is the teleological aim at some ideal in the future. This aim, however, is not really beyond the present process. For the aim at the future is an enjoyment in the present. It thus effectively conditions the immediate self-creation of the new creature.

Physical science has reduced Nature to activity, and has discovered abstract mathematical formulae which are illustrated in these activities of Nature. But the fundamental question remains: How do we add content to the notion of bare activity? This question can only be answered by fusing life with Nature.

In the first place, we must distinguish life from mentality. Mentality involves conceptual experience, and is only one variable ingredient in life. The sort of functioning here termed "conceptual experience" is the entertainment of possibilities for ideal realization. The most obvious example of conceptual experience is the entertainment of alternatives. Life lies below this grade of mentality. Life is the enjoyment of emotion, derived from the past and aimed at the future. It is the enjoyment of emotion which was then, which is now, and which will be then. This vector character is of the essence of such entertainment. The emotion transcends the present in two ways. It issues from, and it issues toward. It is received, it is enjoyed, and it is passed along, from

moment to moment. Each occasion is an activity of concern, in the Quaker sense of that term. It is the conjunction of transcendence and immanence. The occasion is concerned, in the way of feeling and aim, with things that in their own essence lie beyond it; although these things in their present functions are factors in the concern of that occasion. Thus, each occasion, although engaged in its own immediate self-realization, is concerned with the universe.

The process is always a process of modification by reason of the numberless avenues of supply, and by reason of the numberless modes of qualitative texture. The unity of emotion, which is the unity of the present occasion, is a patterned texture of qualities, always shifting as it is passed into the future. The creative activity aims at preservation of the components and at preservation of intensity. The modifications of pattern, the dismissal into elimination, are in obedience to this aim.

In so far as conceptual mentality does not intervene, the grand patterns pervading the environment are passed on with the inherited modes of adjustment. Here we find the patterns of activity studied by the physicists and chemists. Mentality is merely latent in all these occasions as thus studied. In the case of inorganic Nature any sporadic flashes are inoperative so far as our powers of discernment are concerned. The lowest stages of effective mentality, controlled by the inheritance of physical pattern, involve the faint direction of emphasis by unconscious ideal aim. The various examples of the higher forms of life exhibit the variety of grades of effectiveness of mentality. In the social habits of animals there is evidence of flashes of mentality in the past which have degenerated into physical habits. Finally, in the higher mammals and more particularly in mankind, we have clear evidence of mentality habitually effective. In our own experience, our knowledge consciously entertained and systematized can only mean such mentality, directly observed.

The qualities entertained as objects in conceptual activity are of the nature of catalytic agents, in the sense in which that phrase is used in chemistry. They modify the aesthetic

process by which the occasion constitutes itself out of the many streams of feeling received from the past. It is not necessary to assume that conceptions introduce additional sources of measurable energy. They may do so; for the doctrine of the conservation of energy is not based upon exhaustive measurements. But the operation of mentality is primarily to be conceived as a diversion of the flow of energy.

Philosophy begins in wonder. And, at the end, when philosophic thought has done its best, the wonder remains. There have been added, however, some grasp of the immensity of things, some purification of emotion by understanding. Yet there is a danger in such reflections. An immediate good is apt to be thought of in the degenerate form of a passive enjoyment. Existence is activity ever merging into the future. The aim at philosophic understanding is the aim at piercing the blindness of activity in respect to its transcendent functions.

SELECTED BIBLIOGRAPHY

Bergson, Henri: Creative Evolution, 1911
Driesch, Hans: Man and the Universe, 1929
Driesch, Hans: The Science and Philosophy of the Organism, 1908
Haldane, J. S.: Mechanism, Life and Personality, 1913
Hobhouse, L. T.: Development and Purpose, 1913
Huxley, Thomas: Man's Place in Nature, 1863
Leighton, J. A.: Man and the Cosmos, 1922
Lewes, G. H.: Problems of Life and Mind, 5 vols., 1874-1880
Moore, Benjamin: The Origin and Nature of Life, 1913
Morgan, C. Lloyd: Emergent Evolution, 1923
Osborne, H. F.: The Origin and Evolution of Life, 1917
Schilpp, P. A. (ed.): The Philosophy of A. N. Whitehead (Vol. 3 of the Library of Living Philosophers), 1941
Whitehead, A. N.: Concept of Nature, 1920
Whitehead, A. N.: Nature and Life, 1934
Whitehead, A. N.: Process and Reality, 1929

METAPHYSICS

By Everett W. Hall

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The author of an essay on metaphysics finds himself in an awkward position today. By the very use of the term "metaphysics" he finds himself classified, in advance, with one of the parties in a very bitter conflict. He finds himself, perhaps quite unwillingly, as in the present case, on the side of "God" as against the "positivistic professors." If, however, he dissociates himself from this aggressive form of present-day medievalism and refuses to vilify science, positivism, and the modern temper, his interest in metaphysics is looked on askance, as a sort of eccentric pose, potentially dangerous, as is any compromise, even a superficial and verbal one, with the devil.

The violence of the attack upon scientists and positivists by certain contemporary champions of "metaphysics" is quite understandable. It is beyond doubt that not only the word "metaphysics" but in the main what it has stood for in the past has become of ill-repute in the present age. Not only scientists, but even professional philosophers vie with one another in disclaiming all metaphysical assumptions. Why has metaphysics come into this disrepute?

First, there is the dominant emphasis upon action characteristic of our age. Philosophers themselves are becoming ashamed of their "inactivity." In our professional philosophical associations there is a rapidly growing movement to eliminate technical papers and discussions on theoretical issues in epistemology, ontology, and logic, in favor of symposia on the philosopher's function in society, on fascism, communism, capitalism, and so forth. And this seems to be not merely a shift in the problems to be considered; it seems to indicate a shift in the whole meaning and purpose

of philosophic endeavor. "Have philosophers the right to speculate on recondite metaphysical points when civilization is at a cross-roads, when democracy is being challenged by the threat of militant dictatorships?" it is asked. It is supposed that the philosopher's job is to *do something,* directly and immediately, about the practical social and economic issues facing humanity, to elicit the proper ideas and emotions in the general public on each current domestic and international issue so that public opinion will be formed quickly and decisively. Now if this is to be *the* function of the philosopher, then metaphysics is no longer part of his task.

There is no doubt that civilization is at a cross-roads, that the democracies must be revitalized if they would successfully meet the challenge of the dictatorships, and that educated men, especially university men, should be alive to the threat to free intellectual inquiry, involved in all forms of fascism. But why should the philosopher take upon himself, in any special degree and to the exclusion of his own characteristic inquiry, the meeting of this social challenge? Why should the philosopher single himself out as *the* defender of democracy?

One cause of this assumption that the philosopher should become in a special sense *the* defender of democracy lies in the widespread feeling that metaphysics has no practical application. The physicist, despite the world-crisis, can legitimately continue to speculate about the structure of the atom, because his speculations will probably (judging by the past) issue in greater control over nature, in theories that can be applied successfully by practicing engineers. Thus though the theoretical physicist does not directly *do anything,* but simply inquires, yet his inquiry has results which obviously make a difference in the activities of people who *are* doing things. But metaphysics, it is supposed, yields no increased control over nature; there is no recognized applied metaphysics, no practicing metaphysical engineer.[1] Thus not even indirectly does the metaphysician do anything, and so in an age of activity he is entirely out of place.

What can I say here by way of justification of metaphysics? Two things. First, that the metaphysician does, indirectly, do things. Second, that the reigning gospel of action may itself be challenged. As to the first point, I would say that the metaphysician's influence upon people's action is even more indirect than is that of the theoretical physicist, and that its impingement upon action is different. The mechanical or electrical engineer can apply theoretical physics almost directly—he needs to know little of psychology, for example, because his application of physics takes the form of machines that can be used without being understood. If every automobile driver had to be his own mechanic, then besides the automobile engineer there would have to be popular instructors in mechanics before the physicist's theories would influence people's activities. Now metaphysics gives us no machines that can be used without being understood. If it affects people's actions, it does so only if they to some degree make it their own, understand it and feel it. And since it is by nature a highly technical and theoretical subject, its effects upon public action are at some remove in time and are of a general nature (the average man, through sheer lack of time, cannot become proficient in it). Furthermore, it affects action not by giving control over nature, not by offering physical devices which can be used for various purposes, but by shaping views as to what nature is and how it can and ought to be controlled, by indicating appropriate ends. It does so through a theory of ethics, based in a theory of values which, in turn, is based in a set of views concerning the nature of existence and of knowledge.[2] Neo-platonic metaphysics, whatever its own sources, did play a rôle in the growth of the monastic ideal, with its escape from the material world and its contemplation of spiritual essences. Dialectical materialism, even though being modified in the process, has had tremendous influence upon activity in Soviet Russia.

But second, why should we judge metaphysics solely in terms of its effects upon action? Perhaps it has a value, for understanding, not reducible to such effects. Perhaps

the current enthronement of action, making thought a mere vassal, is not unassailable, though pragmatism has made it popular. What is its basis? It seems to me essentially two-fold. First, there is the actual success in application of the physical sciences. They have remade our world, in so far as we have used them. They can be treated as our practical servants, as simply that which gives us useful devices; why not say that that is all there is to them and, generalizing, that that is all there is to any intellectual inquiry, viz., that it is simply a necessary adjunct in gaining practical control over nature? And if it be objected that the physical sciences include much that has not been practically applied, why not answer that we should give them time and leeway, that practical applications often come where least expected? We might even add that, so far as experimental, they are themselves active, practicing control over nature, and we might mumble something about "action is the test of theory."

At best, however, this basis of actionism[3] is somewhat forced and external. For clearly, in their theoretical form, the physical sciences do not make thought the servant of action, but rather action the servant of thought (or of knowledge: both action and deductive thought are, in the physical sciences, servants of the desire to find out). For the physical sciences, control of nature is a means not an end; their goal is verification (or disverification) of a theory; and strictly it is not activity that is the test, but the observed objective situation after modification by the activity.

It is rather in the biological sciences that actionism finds its chief ground. It is argued that human capacity for thinking survived in the struggle for life because of its biological utility, that thought owes its continued existence to its service to living activity. When this line of argument is applied to metaphysics, however, the result is somewhat ambiguous. It may be claimed that every historically influential metaphysics must have been bio-socially useful or it

would not have been successful (on the tacit assumption that everything useless is eliminated). This would offer a bio-social justification of metaphysical speculation, though requiring of every successful metaphysics that it be adjusted to the needs of the society in which it is to function. But again it may be claimed that metaphysical speculation clearly has no biological utility, and hence whether it be tolerated as a form of recreation or discarded as a waste of energy, it is of no vital value to mankind (the tacit assumption here is that only the definitely harmful is eliminated—that persistence of a function is no proof of its utility to its possessor). This latter reading of the biological argument is manifestly destructive of serious metaphysical inquiry. I believe, however, that the former is equally pernicious. For, metaphysical inquiry seeks knowledge, and this view grants it only bio-social utility.

How is a metaphysician to meet this threat to his very existence? I think that Sidney Hook has indicated a way in his provocative book, *The Metaphysics of Pragmatism.* He shows that such a view as John Dewey's, making thought an instrument of activity, itself rests on a set of metaphysical assumptions. It presupposes (1) a world, not created by thought, in which thought operates; (2) which world includes change; (3) some of which change is not wholly necessitated apart from the operation of thought and is amenable to determination by thought; and (4) some of this body of change amenable to control by thought is not deemed ideal apart from that control. This may not be an exact summary of Professor Hook's contentions; the main thing is his elucidation of the fact that Dewey's instrumentalism (which I take to be a form of actionism) is inescapably metaphysical.[4] Overt, physical activity is no foe of metaphysics, save indirectly in the sense that different and (for most people) exclusive types of enterprise cannot be indulged in at the same time. Actionism, however, is an enemy. But I know of no way in which it can justify itself, can present evidence for its claim, without contradicting itself. For, any argument pre-

sented tacitly assumes that thought, not action (though it may be thought about action), is to be the judge. Theory of action is as theoretical as theory of theory. The doctrine that thought has survived because of its biological utility is not presented as itself biologically useful but as a statement of fact.

Should the actionist claim, however (as some have done), that his position can be justified on its own ground, without capitulation, our answer remains essentially unmodified. His claim would then be, not that his views are true, but that they are useful for action; to claim that thought is simply a servant of action is itself simply a service to action. But is not this whole statement, viz., "The actionists' own views claim and need no other justification than their utility in action," a claim of truth, of what is the case? And if one is to present any relevant evidence for its truth, must not that evidence be essentially cognitive, i.e., further insight as to what is the case? *No* effects upon action can serve as evidence for the truth of the claim, "only effects upon action are relevant evidence for the truth of any belief."

Suppose, however, the actionist should say, "Granted my position makes metaphysical assumptions. What of it? It serves no useful purpose to study them, to ask concerning their truth or how their truth might be established. The only motivation I recognize is directed toward utility in action, and I find none such in metaphysical inquiry." Now in answer to this, I could make out a case for the contention that investigating the truth of one's metaphysical assumptions often does make a difference in one's action. But this I shall not do, for it would put me under the obligation of a further and somewhat extensive argument to make out the autonomous character of such metaphysical investigations when justified by their effects upon action. Rather, let me simply admit that I cannot *prove* that the actionist ought to become a metaphysician. But I can point out that there are metaphysicians who do have such motivation and suggest that even the actionist, like many others, might

come to possess it if he honestly attempted to analyze and criticize his own metaphysical assumptions, forgetting for the moment the matter of the utility of the process.

Besides the activistic temper of our times, another source of the current disrepute of metaphysics lies in the excessive contemporary tendency toward specialization in all branches of inquiry. This specialization is allied with actionism, for control of nature has increased *pari passu* with increased specialization in the sciences.[5] Now metaphysics, being a highly general subject, perhaps the most general, is out of keeping with this contemporary tendency toward specialization.

But here again, as with actionism, it may be that our age has gone too far to an extreme. It may be that excessive specialization has evils that can be corrected only by the complementation offered by a highly general inquiry. Specialization in inquiry is, of course, valuable and even necessary for progress; it becomes evil only when it absorbs all cognitive activity, when the specialist, abandoning his specialty, disparages all consideration of general issues. There is often tacitly present in the specialist's thought the assumption that the more general in scope a belief is, the less reliable, and hence the less valuable any inquiry as to its truth. But note, and this again is no mere dialectical legerdemain, that *this* assumption is as general as any concerning knowledge could be, and hence, if taken as an instance of itself, is as unreliable as any such assumption could be. Let me put it differently. If the specialist remains a specialist he can say nothing against the metaphysician nor in favor of specialization. As soon as he lauds specialization and tries to give weight to this laudation by arguments or evidence, he has left his speciality, and is talking about other specialities as well, about specialization, and the arguments he presents will probably be drawn from many special fields besides his own (and probably negative evidence from the vague nebulosities of metaphysics). Thus he has capitulated. He can oppose metaphysics only by becoming metaphysical. Further, if the specialist's assump-

tion is put as I put it above, as a logical implication, it is a flagrant *non sequitur.* For it has not stated, though it requires, that reliability of a belief is the only cognitive desideratum. And such a statement, if made, would surely be rejected by most of us. Let us suppose that reliability is in inverse ratio to generality; still would we say it is more important to investigate the truth of the proposition that John Jones paid twenty-five cents for a dozen eggs at Podunk on June 28, 1939 than to investigate the truth of the proposition that the price of eggs varies with the rate of egg-laying in the vicinity?

In fact, if we were to press home this assumption that the more specialized an investigation the better it is, as a cognitive enterprise, it would follow that the best cognitive undertaking is to find out things about individuals as such. That Sally Smith wore a red straw hat, which she bought at Hale's on sale for $2.95, to the Methodist Church at Palo Alto last Sunday would be the paradigm of the propositions whose truth is investigated by the best cognitive endeavor. But clearly this it not the form of knowledge sought in the sciences, even the most specialized. Rather, they all seek to establish propositions which are general in form. They treat individuals as *instances,* and concern themselves with generalizable properties. In fact, the very purpose of specialized investigations in the sciences is to verify (and possibly qualify) general propositions.

Furthermore, the relation between a less and a more general belief is not as simple as the assumption, that the more general the less reliable, would require. A careful analysis here would carry us into questions of the nature of generalization and of verification, which will in due course occupy our attention. For the present I can only say that there seem to be two forms of very general beliefs which are accepted as more reliable than less general beliefs, and in fact are often used to determine the reliability of more special beliefs: I refer to logical and mathematical principles and to well-established theories or laws in the empirical sciences.

This last consideration turns our attention to an aspect of all successful specialization, viz., its coöperativeness Specialists must, perforce, accept results of specialists in other fields and general theories as established by the co-operative investigations of many if they are to get anywhere in their own special investigations. This is no doubt in part the basis of the plausibility of the contention that the final aim of the scientist is to come into agreement with other scientists. It may well be that one of the reasons for the much-stressed contrast between scientists and metaphysicians on this matter of coming to agreement amongst themselves lies in the fact that metaphysicians are not specialists, and so are not forced into accepting each other's results in order to pursue their own investigation.

In the face of the contemporary tendency toward specialization, metaphysics can urge that generalization is at least as important in the knowledge-enterprise as specialization, that the two should complement one another. Against this, two things might be said. It might be said, that some generalization is valuable, but there is a line beyond which everything is so general as to be of no cognitive worth, and metaphysics is wholly beyond that line. In answer, I might ask that this line be defined and some argument given for drawing it where it is. In the second place, it might be admitted that very general beliefs are significant only if they are pretty well founded in specialized investigations, and metaphysics has not been so founded. There are, I must admit, grounds for this accusation (though there are manifest exceptions, e.g., Aristotle). But first let us note that this is a condemnation not of metaphysical inquiry *as such,* but of its actual exemplifications in the past. And second let us realize that the blame may not wholly rest on the metaphysicians. Perhaps the specialists have not done their part in showing the implications of their findings for more general issues. I am myself convinced that the evils of over-specialization in the sciences and of largely groundless metaphysical speculations of the wishful-thinking variety can be overcome only by the coöperative labors of

scientists and metaphysicians acquainted with each other's fields and methods.

Incidentally, I would add here that the metaphysician must be in his own way a specialist. Very general issues have aspects not reducible to more special issues. And these to be dealt with accurately and critically require an adequate, and thus technical, terminology. The strange, almost foreign, language of metaphysics is at least in part justified.

Finally, let us take brief note of the positivistic temper of our times as a source of the disrepute of metaphysics. To what extent this positivistic temper is the effect of the thought of philosophers themselves may be difficult or impossible to determine, but in any case it has been definitely formulated by philosophers. I shall distinguish four forms of positivism, all being alike in feeling that knowledge is restricted to perceptual facts, whereas metaphysics is essentially an attempt to go beyond such facts. First there is what may be called "agnostic positivism." A good example is the standpoint of Ernst Mach. Its basis is a long philosophical tradition of dualism, going back at least to Plato, claiming that the world we apprehend through the senses is mere appearance; real things are grasped only through the (metaphysical) intellect. Kant gave a great blow to this tradition by questioning the human capacity to know such purely intelligible "things-in-themselves." Mach simply carried further this agnostic reaction. All we can know are sensations, hence all the items of everyday and scientific knowledge—bodies, minds, atoms, forces, etc.,—are simply sensations or economical devices for dealing with complexes of sensations. Metaphysics, as an attempt to know things-in-themselves, seeks the impossible.

But now let us ask, what sort of knowledge would this be itself, viz., the knowledge that all knowledge is reducible to sensations? Clearly (though Mach was a physicist) it could not be scientific knowledge—it is far too general. And surely it is not common sense. What then is it? May

we not suspect it of being metaphysical? If, of course, we arbitrarily restrict the term 'metaphysics' to a single important metaphysical tradition (the transcendental, dualistic), then agnostic positivism would seem to be non-metaphysical. I say "seem to be" because, although in theory of knowledge it excludes things-in-themselves, it still seems to admit (manifestly in Kant, more subtly in Mach) the *possible existence* of things-in-themselves. In fact, the very doctrine of mere "sensations" indicates that we have here a truncated dualism; but killing the father does not destroy the paternity. If we do not thus arbitrarily restrict 'metaphysics' but use the term in a broader way, more consonant with the history of its use, viz., as the investigation of the general nature of knowledge and existence, then agnostic positivism is obviously metaphysical, and its opposition to metaphysics is an opposition to one type of metaphysics. And if it be asked, "why call it metaphysics?" the answer is, "why not?" There is no other name for it in current usage, and it has good historical sanction (at least if we discount the effects of Kant's disparaging use of the term).

A second type of positivism may be called "classificatory." The best example is probably the system of Auguste Comte, though Comte did not perhaps completely eliminate the agnostic element. It holds that the only legitimate task of the philosopher (Comte would say the sociologist) is simply to trace the history and give a classification of the sciences. The attempt of metaphysics to explain phenomena by finding their causes in occult essences was of historical value in unifying human knowledge. But we are now in a position to unify scientific knowledge on a purely descriptive, classificatory basis, and the metaphysical desire to explain should be given up as ungratifiable. Only perceptually observable phenomena exist; they alone can be known.

Classificatory positivism does not reveal the marks of dualistic metaphysics, at least, not as clearly as does agnostic positivism. Yet it is open to objections similar to those we urged against agnostic positivism. It rejects metaphysics

in toto by tacitly identifying it with one of its forms, viz., the metaphysics that attempts to explain by appealing to "reified abstractions," ignoring the fact, e.g., that Aristotle, in his *Metaphysics,* rejects the Platonic view precisely on this score. May there not be a purely descriptive metaphysics? Comte would, no doubt, call it "sociology." But it would clearly not be scientific sociology as we know it, for the latter is restricted in its investigations to certain kinds of knowings and existents, which we may briefly refer to as "social." It is concerned with knowledge in the other sciences only as this *has* significant social causes and effects, and only *in respect of* these social relations. Leaving aside the question whether there are existents or cases of knowledge which do not have social causes and effects, surely there are many which have other aspects than their social bearings. For example, however important socially were the successes in the scientific world of the Newtonian and the Einsteinian theories of gravitation, these theories have also other aspects (generally, those investigated by the physicists). The bearing of the perihelial movement in the orbit of Mercury upon the truth of the Einsteinian theory is not itself a social matter; in studying it physicists are not studying the effects of the theory upon the general public or even upon physicists. That there are such non-social aspects of existents and knowledge is a fact which must be recognized and dealt with by any adequate study of the general nature of existence and knowledge. Such a study, then, is not properly called "sociology;" 'metaphysics' is a better designation.

Classificatory positivism itself obviously makes metaphysical assumptions in this last sense of 'metaphysics.' Only phenomena exist and can be known. Here we have a common nature posited to all existents and all cases of knowledge, viz., that they are merely phenomenal. Nothing behind the scenes, nothing explanatory is allowed. The tendency is to eschew subjectivism (Comte rejects introspective psychology as a science), and to accept the data of the (objective) sciences. An obvious difficulty here,

however, is that the sciences themselves give us many explanations. These might be sorted out and discarded as non-positivistic vestiges of earlier, metaphysical modes of thought. The result of this, however, might be disastrous to contemporary science, especially to what Comte classed as the simplest, most positivistic of the sciences. Emile Meyerson presents almost an overwhelming case for just such a disastrous result.[6] Suppose, however, this sorting and discarding to be accomplished. Still it is supposed that there is something common to the phenomena remaining. They are all descriptively known. They are known by the processes of observation, experiment, comparison. But what is common here? Can anything be said of it? The attempt to answer such questions launches us into metaphysics, at least in the terminology of the present author, and, in any case, is not undertaken by any of the sciences.

A third form of positivism may be called "psychological." At least as far as knowledge is concerned, it claims to dispense with metaphysics by dealing adequately itself, on a scientific basis, with the general nature of knowledge. In its older form, viz., "associationism," it is now out of date. Hence, and because apart from its subjectivism it has been largely retained in its newer form, "behaviorism," I shall not discuss it in its older form. The later writings of John Watson furnish an example of behavioristic positivism. This view holds that the common nature of all knowledge is that it is composed of language habits (the more restricted form being oral language habits, wider forms would include writing habits, habits of gesturing, etc.). However, the attempt to reduce the general metaphysical inquiry to this form (or other forms) of psychological mechanism faces the same difficulty as the attempt to reduce metaphysics to sociology. As a special science, psychology recognizes only some aspects of knowledge. So with language habits. Suppose a chemist announces the discovery of a new isotope. Does he, or his fellow chemists in verifying his discovery, study his language habits? No, they investigate a substance, and though that substance may

have causal bearings on his language habits, they do not investigate these. They leave them to the psychologist. Now any acceptable general analysis of the nature of knowledge must recognize these non-psychological factors in knowledge. Furthermore, unless existence itself be reduced to knowledge, psychological positivism omits an important phase of metaphysical inquiry, the general nature of existence. The behaviorist, I presume, does not identify the lips, tongues, larynxes, etc., of his subjects with his own (i.e., the behaviorist's) language habits. He supposes they *exist* whether known (i.e., talked about) or not.

A fourth form of positivism may be called "logical positivism." Rudolph Carnap's views are typical. It agrees with the other forms of positivism in holding that all existents are perceptually observable and all knowledge is restricted to the empirical sciences. Yet it recognizes that *this* sort of statement itself, and all meaningful statements about science (as contrasted with statements *within* a science about facts in its domain), are non-scientific. The investigation of such statements (e.g., 'all knowledge is restricted to the empirical sciences') is the legitimate undertaking of philosophy; but such an investigation is not concerned with facts nor does it yield knowledge. It is rather a sheer logical analysis of language. It seeks to determine what sentences in a language "follow from" or can replace others on mere knowledge of the rules of the language, i.e., without knowledge of what the language is about, without, that is, knowledge of fact.[7] Logical positivism admits non-empirical, rational or deductive processes, and would have the philosopher investigate them; but it denies that such processes tell us anything about existent facts or yield any knowledge.

This reduction of philosophy to one type of logic clearly destroys metaphysics (along with normative ethics), as the logical positivist forcefully shows. He says that the reason metaphysicians have thought their undertaking meaningful (their assertions to be true or false) was because of a confusion as to two ways of reading their statements. A sentence in

a "material mode" asserts an observable fact. It is true if the fact it asserts is observed; false if it is never observed. Hence, if there is no way indicated of observing its object, if there is no method of verification (or "confirmation") of the sentence by perceptual experience, then the sentence is "meaningless," really makes no assertion at all. A sentence in a "formal mode" makes no assertion about fact, is neither true nor false, is simply a stipulation about syntax in some language. 'My pen is almost empty' and 'Every sentence must have a subject' are material and formal, respectively, in their normal interpretation. Now metaphysical sentences are significant as formal sentences but meaningless as material sentences, whereas they are taken by metaphysicians to be significant materially. Thus, 'Every existent is perceptually observable' is a formal stipulation as to how 'existent' is to be used in a certain language (positivistic). There is no known method of perceptual verification of it; materially it is meaningless.

This seems to me to be the most formidable, certainly the most slippery, type of positivism metaphysics must face. It would seem that this form of positivism can oppose metaphysics without becoming metaphysical. But can it really "oppose" metaphysics? Let us grant that metaphysical sentences are meaningless in *its* terminology. This is itself however only a formal assertion—it stipulates how the *logical positivist* is to talk about metaphysics. There are other languages in which metaphysical statements are meaningful, in fact, the only meaningful statements,[8] and Carnap himself has enunciated a law of tolerance which amounts to saying that, so far as logical positivism is concerned, 'anything goes' in language, one can construct his language as he pleases.

Let us, however, attempt to stay within the language of logical positivism. It would seem to be within the province of philosophy as logical analysis of syntax to distinguish between meaningful and meaningless sentences, and to discard metaphysics as supposedly making material assertions that are really meaningless. To say that a sentence

is meaningless is not to say that it false, but that there is no known way of verifying or disverifying it.[9] *But this is a statement of fact,* for it is a statement about the relation of the sentence to something outside the language. The logical positivist might here object that when he talks about 'a method of verification' he is really not talking about perceptual observations, physical experimental procedures, etc., but simply about language. He would say, " 'There is a method of verification of a sentence' means simply 'Other sentences formally follow from the sentence in question.' " Now, if he really means only this, then he (in his view of his own function) can properly distinguish between meaningful and meaningless sentences. His difficulty would be that practically all sentences would be meaninful; certainly many "metaphysical" sentences would be meaningful. So he would have to qualify further. " 'There is a method of verification of a sentence' means simply 'other sentences, some of which are protocol sentences, follow formally from the sentence in question.' " By a 'protocol sentence' he means a sentence reporting a direct observation. But this leads to a dilemma. Either he must turn over all determination of what sentences are protocol sentences to the special sciences, or he must admit that he, as philosopher, can in some cases decide that certain sentences are protocol sentences. On the first alternative, he (the philosopher as logical analyst) can *never* decide what sentences are meaningful and what meaningless; and so he can never assert, "all metaphysical sentences are meaningless," in fact, he cannot even assert, "some metaphysical sentences are meaningless." He must leave it to the sciences to determine, *seriatim,* which metaphysical sentences are meaningful and which meaningless. He is reduced to simply gathering and reporting the results. Furthermore, if we are to be honest with the facts, matters are not as simple as this suggests. For scientists have not, to date, got in the habit of clearly indicating which of their sentences are protocol sentences. And this is not merely a bad habit on their part. They find it extremely difficult to determine just

what is a report of direct observation and what is an implication of accepted hypotheses or laws. If the logical positivist should choose the second alternative above, he could then retain his assertion that all metaphysical sentences are meaningless but he would have to admit into logical analysis, and thus into philosophy, non-formal sentences, sentences in the material mode that are true or false. For, clearly, to assert that a sentence is a protocol sentence is to assert that it stands in a certain relation not to other sentences but to a direct observation. But now the very basis for claiming that all metaphysical sentences are meaningless has collapsed. That basis was the view that metaphysical sentences are really only formal but are taken to be material. That they are really formal only followed from the assumption that all sentences in the material mode are restricted to the special sciences. But if philosophy (logical analysis) can determine that some sentence is a protocol sentence, then the doctrine that all sentences properly read in the material mode are restricted to the special sciences must be abandoned. Or to put it differently. That philosophy can determine that some sentences are protocol sentences presupposes that it has a method of verification of material assertions (viz., of the sentences stating that such and such sentences are protocol sentences). And by thus allowing knowledge of fact (as contrasted with mere formal analysis of language) to reënter philosophy, "metaphysics" can no longer be ruled out on principle.[9a] The logical positivist might, however, try to avoid this result by saying that all verifiable sentences occur in the sciences; therefore, if there are "metaphysical statements" they *cannot* be verifiable. Again, he might say that "metaphysical statements" are wholly translatable into formal sentences, so far as having any meaning, and therefore can have no empirical content. But these dodges do not allow the logical empiricist to avoid metaphysics. The statement, 'all verifiable sentences occur in the sciences,' is itself not a sentence to be found in the language of any science, yet it is obviously factual, not formal. The same can be said

concerning, 'all metaphysical sentences can be wholly translated into formal sentences.' I conclude that logical positivism must be either wholly tolerant toward metaphysics or else become metaphysical itself.

We have considered some of the main sources of the present disrepute of metaphysics. They are not eternal, unmodifiable; they do not rest on some unchallengeable rock of insight, giving an infallible revelation of the uselessness or impossibility of metaphysical inquiry. So far as presenting any real opposition to metaphysics, they are all themselves surreptitiously metaphysical. It is, then, quite within the realm of possibility that the near future will see a revival of metaphysical interest. I believe there is real need of such a revival.

In the first place, the subject-matter of metaphysics has not disappeared; the disesteem has attached to the investigation without being destructive of its object. It is still a wide-spread and important, though largely unexpressed and unexamined, assumption that there is an objective common nature to all cases of knowledge and also to all existents. Let us note the importance of this assumption for action. If, *per contra,* the nature of existence were taken to be wholly different in various concrete situations, action would itself be stultified. Suppose, when a child writes to Santa Claus, a worshipper prays to God, a premier of a Democracy has faith in the honesty of a dictator, a physicist believes in a certain structure of the hydrogen atom, suppose, I say, that the beliefs in the existence of these objects include no common factor of existence. More concretely, suppose that for Santa Claus to exist means " to have been a popular myth," for God to exist means "to get what you pray for," for the dictator's honest intentions to exist means "that the dictator asseverate his honesty," for an atomic structure to exist means, "to be able to write certain symbols in a pretty pattern." I submit that if the believers in the entities enumerated held such a view of existence they probably would not write painstaking letters to Santa Claus, utter devout prayers to God, enter pledges with dictators,

nor construct cyclotrons to break up atoms. Now if it be said that my choice of what existence means in these different instances is quite arbitrary, I gladly acquiesce. But how are we to determine the supposedly radically different meanings of existence in different situations? Let the context determine, we may be told. But this does not help unless we suppose 'determination of the meaning of existence by the context' is itself independent of context in the sense that it is the same for all contexts, no matter how different. And why should we accept a common meaning to this but reject any common meaning to 'existence?' There are, perhaps, two important supposedly common meanings to 'determination of the meaning of existence by the context': (1) 'existence' in any context means having an effect upon action in that context; (2) 'existence' in any context means whatever is referred to, in that context, by 'exist' or any accepted synonym. Let us note two things here. First, that each of these *is* a common, general meaning of 'existence,' however much, in further respects, the meaning of 'existence' may vary from situation to situation. Furthermore, each of these views of the common nature of existence would be stultifying to action. If we convinced the child writing to Santa Claus that the meaning of Santa Claus' 'existence,' in that situation (in accordance with (1), above) was simply that the child was writing to him, rather than, say, begging for a Christmas gift from his parents, would not the probable effect be that the child would cease writing to him? And again, would even a gullible premier exchange pledges with a dictator if he were convinced that the 'existence of the dictator's honest intentions' meant (in accordance with (2), above) simply that the premier, and perhaps the dictator, referred to those intentions as existent?

We act, I contend, as though there were some common nature to existence in the entities our action supposes existent (as the common belief, that we would act differently if what we take to exist where taken not to exist, indicates). Further, this common nature to existence is taken, in

our action, as objective to our action (including our language habits) in the sense that it is not constituted by or reducible to that action or a phase thereof.

In the second place, that there is an objective common nature to existence (and to knowledge) is an important assumption for theory also. Every science takes great pains to try to determine whether certain hypothetical entities do objectively exist. The enormous amount of time, energy, and money spent in trying to determine the existence of such entities as phlogiston, electrons, entelechies, genes, ether, synaptic traces, etc., indicates this. And the fact that much of this determination is indirect, by checking the consequences of the assumption of the existence of such entities, rather than by direct perceptual experience of the entities themselves, that the scientist himself may not be able to give a clear definition of what he means by existence, nor even be able to discriminate exactly between those symbols in his writings indicative of existent entities and those adopted merely for calculative efficiency, all of these admissions fail to overthrow the contention that the sciences are concerned with questions as to what exists.

Furthermore, the sciences assume a common meaning to this objective existence they investigate. This is indicated by the fact that every special science accepts a great deal as existent on the authority of other special sciences. The physicist's rejection of phlogiston, as non-existent, is taken over by the physiologist; he seeks no heat fluid in warm-blooded animals. Rather he sees in oxidation, a process accepted from chemistry, the basis of warmth in animal life. The relation between the special sciences are very complex. I simply urge that their cooperativeness requires the tacit assumption of a common significance to their acceptance and rejection of proposed entities.

But the presence of a legitimate subject-matter alone does not constitute an intellectual discipline. It might be (in fact, tacitly often is) held that there is an objective common nature to existence and knowledge, but that what it is is so evident that any inquiry into it is a waste of

time, worse, is distinctly pernicious, for the human intellect is active and where not occupied with real problems will create pseudo-problems. Metaphysics is, in fact, just such a pernicious creation of pseudo-problems.

If, however, the general nature of existence and knowledge were so evident, what are they; why are they not easily formulated in a generally acceptable fashion? The persistence down through the history of metaphysics of a few major trends of thought ought to make one suspect the easy assumption that metaphysical problems are pseudo-problems created in a sphere where all is crystal-clear. Also, it seems rather odd that the common man and the scientist, when they take time to comprehend metaphysical issues, themselves almost always end by taking sides in those issues. This of course may be due not to the fact that metaphysics unearthes real difficulties, but simply that it has got hold of some potent magic for luring even good minds into its mazes of unreality once they come under its spell. But what then of those who induce this spell upon themselves, launching, with little or no knowledge of the history of metaphysics, straight into metaphysical controversy from the more general issues of their own sciences? How account for Pearson's positivism, Pavlov's materialism, Eddington's spiritualism, Planck's realism?

If it be admitted that all this is no mere historical accident and yet that the common nature of existence and knowledge, so manifest to the uninquiring mind, becomes befogged, complicated, full of difficulties when investigated, then we can properly answer with our suspicions. Problems and difficulties only arise to an inquiring mind, but that in no sense proves they are created by inquiry.

Again, it might be contended that metaphyscial conflicts are not really conflicts over metaphysical issues, but struggles concerning quite different matters, issues of value, of social action, of economic status, etc. Different metaphysical systems would thus simply be weapons in an essentially non-metaphysical conflict. Often the proponent of this view adds (with dubious intellectual integrity but no doubt

heightened practical effectiveness) that *his* metaphysics is not only a weapon, but is *the* one, crystal-clear, obviously true metaphysics, as his opponents would recognize if they would stop fighting. Such a view of metaphysical issues, however, runs into serious difficulties which really *are* obvious to everyone not wholly blinded by loyalty to some Cause. It requires a pretty wholesale ascription of unconscious purpose (not as incidental, but as life-centering motives) to metaphysicians, for the majority of metaphysicians certainly *think* (unless they are wholly dishonest) that they *do* conflict with one another over *metaphysical* issues. To be plausible at all, this view should show some high correlation between sides taken in metaphysical issues and sides taken, by the same men, in the "real," non-metaphysical, issues that are supposedly involved. But the exceptions here are more numerous than the confirmations. First, there are many men fighting for the same non-metaphysical cause who yet disagree violently concerning metaphysics. Many idealists, e.g., Berkeley, are ostensibly friends of religion, as are also most of the Thomists. Yet the Thomists oppose idealism in metaphysics as thoroughly as they oppose any view, materialism, for example. Likewise, in the struggle of the communists against capitalism, both neo-Kantian and materialistic metaphysics were espoused until Lenin, seeing the practical danger of metaphysical controversy within the communist ranks, put an end to the conflict by insisting on materialism as the only accepted ideology. Second, many who espouse the same metaphysical standpoint are basically opposed in their non-metaphysical allegiance. Many of the American critical realists are essentially Thomists in theory of knowledge, but are decidedly not supporters of the Catholic Church. Likewise, many emergent evolutionists are metaphysically close to the doctrine of dialectical materialism, but are not communists in their socio-economic sympathies. If it be said that the same metaphysics can be used as a weapon on opposite sides of a non-metaphysical struggle, and that opposed metaphysical systems can be used as weapons on the same side

in a non-metaphysical dispute, then the doctrine that there really are no metaphysical controversies (all such being really non-metaphysical) has completely collapsed. And the facts seem to force the doctrine into some such collapse.

If finally it be admitted that the subject-matter of metaphysics is legitimate and important and that the nature of that subject-matter is not manifest apart from a definite investigation of it in its own right, and yet it be asked, "Why undertake it; it is hard, leads to controversy, gives no assurance of ultimate success?" then I have no answer. Perhaps there is none, save that man is curious and critical; that when faced with fundamental problems he finds a strong urge in himself to try to solve them, and when he resolutely undertakes their solution he finds a curious joy in this very pursuit. Perhaps one must be more optimistic concerning the outcome than history would warrant. In any case, I have personally had some real satisfaction in trying to work through a metaphysical point of view represented in this essay, and perhaps some readers may find it interesting to try to follow me.

Suppose, now, that it be admitted that metaphysics has a legitimate and important subject-matter whose investigation is possible and of interest. We must next face the problem of the nature, the method, of this inquiry. It is a wide-spread (metaphysical) assumption of our age that the scientific method is the only admissible cognitive method. It has become quite popular for scientists to argue that ethics is a legitimate field of inquiry, therefore it must become a science, since only scientific method yields knowledge. So, supposing it comes to be admitted that metaphysics is a permissible field of inquiry, it might be urged that it should become a science. My reaction can be anticipated. Metaphysics is concerned with more general problems than are the sciences, and these by their very generality require appropriate methods not utilized in the sciences. Scientific method (if we may speak of anything so manifold as *a* method) is the best method there is, in the sense that it gives us the most reliable evidence *for the sort of*

beliefs it properly examines. But it does not follow that it is the best in the sense of the most appropriate to *every* belief. Even within science it is important to distinguish between the problems, "What method is most reliable absolutely?" and "What method is most reliable for a given subject-matter?" Many biologists and social scientists argue: "Physics has developed the most reliable procedures, therefore we should adopt its methods in our field." They fail to see that, *when applied to biological or sociological phenomena,* the physicist's methods may be less reliable, since less relevant, than distinctively biological or sociological methods. So, although it is true that scientific methods are more reliable in science than metaphysical methods are in metaphysics, still, I contend, metaphysics should develop its own relevant procedures and not try to force scientific methods to function in its field.

The propositions to which scientific method is appropriate are general, but never completely general, they are of the form, 'Every so-and-so is such-and-such' not 'Everything whatever or everything observable or experienceable is such-and-such.' Clearly pure induction could not go very far towards establishing a completely general belief. For the wider the generalization beyond particular instances observed the weaker the evidential value of those instances. In any case, pure induction plays a minor rôle in science. Of far greater significance in science and of greater reliability in establishing wide generalizations is the hypothesis-deduction-verification method. This method makes a rather sudden leap (usually mediated by accepted theories) from a set of phenomena to be explained (usually disverificatory of an already accepted theory) to a hypothetical explanation (set in a context of rival, incompatible hypothetical explanations). Then deductions from this hypothesis are made, giving conclusions that can be checked against direct observations. The acceptability of an hypothesis is partly "absolute," i.e., a matter of the number and spread[10] of the verificatory observations, and partly "relative," i.e., a matter of the

ratio of its absolute acceptability to that of each rival hypothesis.

It is necessary to examine a little further this matter of verification. An admissible scientific hypothesis is one which is capable of significant, positive verification. This means that it[11] asserts that the phenomenon to be explained is really a variable function of certain variable conditions or factors. When the conditions vary in certain ways, the phenomenon will vary in a certain way (simplest case being, the phenomenon occurs under certain conditions, does not under others). Suppose the phenomenon to be the pressure of a constant quantity of gas. The hypothesis might then be that this is a function of temperature and volume. Positive verification becomes significant because we do not merely add similar confirming observations (this would reduce the process to simple induction instituted by a guess as to its outcome), but because we can increase relevantly dissimilar confirming observations. We find by varying the conditions of volume and temperature that the pressure varies as the hypothesis asserts.[12] This analysis likewise holds of disverificatory observations. Now this sort of thing obtains only if we are dealing with a variable phenomenon under variable conditions. But in metaphysics we are attempting to get at[13] certain "universal constants," what the scholastics called "transcendentals" (not because they transcended all experience, but because they were a constant factor in every experience).[14] A universal constant is whatever can be asserted of anything whatever (or of everything, where 'everything' is taken distributively). Here, 'can be asserted' means that the assertion must be such that it can be expressed by a meaningful sentence. The only meaningless sentences are those which confuse different semantic levels. I am supposing that a set of words must obey the grammatical rules of the language or it isn't a sentence at all. Again, 'anything whatever' does have a restriction; it refers only to that which can be referred to in what the logical positivists call "the object language." That is, it excludes symbolic expressions in their referential

aspect (though not as facts, e.g., as marks or vocal emissions).

With this definition of 'universal constant' we are in a position to essay a definition of 'metaphysics.'

Metaphysics is the investigation of the meaning and the evidence for the following types of propositions:

(1) Propositions whose subjects are universal constants, or approximations thereto (such as existence, value, knowledge).

(2) Propositions whose subjects are the main classes or kinds of things of which universal constants can be predicated (such as minds, bodies).

(3) Propositions whose subjects are universal constants as qualified by the defining properties of the classes referred to in (2) (such as mental existence, physical existence).

There are strictly three universal constants: existence, knowledge, and value. (Thus three main subdivisions of metaphysics: ontology, epistemology, and axiology.) But of these existence is peculiar, for, knowledge and value are universal constants only potentially and relatively; existence is a universal constant actually and per se. Not everything is a case of knowledge, nor an object of knowledge. Knowledge can be predicated of anything one chooses only in that that thing is knowable, that is, *can be* known *by* a knower under suitable conditions. Likewise for value. Not everything is a case of value (positive or negative). Value can be predicated of anything one chooses only in that that thing is capable of value, that is, *can be* valued *by* a valuer under suitable conditions. But existence is not thus relative to a possible process on the part of some entity other than that exhibiting it.

A metaphysical hypothesis about the general nature of existence or knowledge asserts something equally of all possible observations: the observation is a knowledge of some existent (or existents). And it is not a matter of degree; any actual observation is equally cognitive and existential. You may have more knowledge and more

existence in the sense of more instances, but not in the sense that the nature of either is capable of degree.[15] It is thus not possible to give a significant positive verification of a metaphysical hypothesis, i.e., to observe whether existence varies in an asserted fashion with some variation in the conditions of existence. In fact, 'the conditions of existence' is itself a misleading phrase. *Any* conditions, if they actually obtain, are existent. We cannot put various conditions together and *then* get something existent, as though we could have conditions before we had anything existent. So Berkeley's "esse est percipi," Hobbes' "the universe is the aggregate of all bodies," Schelling's "the world is subject-object," Whitehead's "events are prehensions," are all assertions of universal constants; any *actual* instance of any general term, these propositions assert, is an instance of the constants involved.

This view, that metaphysics is more general than the special sciences, should not be confused with two other views. On the one hand, it should not be confused with the doctrine that metaphysics simply puts together, into one total picture, items furnished it by the sciences. Metaphysical hypotheses are more general than scientific hypotheses not simply in that they are more inclusive in scope, i.e., cover more instances, but in that they are more inclusive *by being more abstract.* The sciences do make assertions about existents; but they are concerned with what *sorts of thing* exist, and the causal dependences in their existence; but metaphysics is concerned with what their *existence* is, what it is to come into existence or cease to be. On the other hand, the view here advocated must be distinguished from the doctrine that philosophy is simply a study of the sciences themselves. I have already criticized the attempt to restrict philosophy to a study of the language of science. I would also oppose the restriction of philosophy to a study of the methodology of science. Any significant methodology is relevant to its proper subject matter. A thorough investigation of methodology considers this factor, and therefore concerns itself with subject-matter. Philosophy is as con-

cerned with *what* is known by science as with *how* it is known by science. Furthermore, the sciences are as concerned with their methods as they are with what these methods tell them of the world. The distinction of philosophy from science is not that science investigates the world, and philosophy investigates this investigation. The distinction is one of level of abstractness. In the old terminology, philosophy is concerned with "categorial" analysis.

Furthermore, the fact that the basic concepts of metaphysics are universal constants ("transcendentals," or "categories") indicates why metaphysical propositions are not, in general, translatable into predictions or made the premises from which (with the aid of data stating initial conditions of systems) predictions can be derived. Some scientific concepts are strictly universal or universal throughout an existential realm, as for example, energy. Every physical existent has an energy-characteristic. But this varies for different existents. Thus, it has predictive significance. Existence, on the other hand, is not only universal. It is constant. It is the same in amount everywhere. Thus, it has only "analytic," not predictive, significance.

Clearly then the most reliable method of establishing general beliefs in science, the verificatory, is not available in metaphysics, at least as the basic or distinctive metaphysical method. What are we to do, supposing we still persist in seeking a fitting method of metaphysical investigation? We may, in the first place, play up the difference of metaphysics from science. We may suppose that the factor in metaphysical method differentiating it from scientific is some new, positive factor wholly different from accredited scientific procedure. Let me give two instances. First, there is what I shall call "temperamentalism." It claims that the metaphysician, when making broader generalizations than the scientist, is simply expressing his own, individual temperament. The metaphysician goes beyond scientific findings only by relying on his emotions, his will to live, his faith, on tendencies in his nature other

than the critical, empirical-mindedness embodied in science. This point of view is, supposedly, corroborated by the controversies in metaphysics; such controversies spring solely from differences of temperament.

Temperamentalism can, of course, be decidedly baneful to metaphysics. Since what is distinctively metaphysical is based on mere temperament, it may be supposed it has no adequate foundation in objective fact and is, therefore, only of psychological significance. But this supposition remains a sheer supposition unless some evidence for it is forthcoming. And this evidence would have to be of the form "metaphysical beliefs are found (1) to be functions of temperaments of their proponents (2) *and of nothing else.*" There may be some evidence of type (1), though it is not very impressive. For a major portion of the evidence as to what a metaphysician's temperament is is usually precisely his metaphysical beliefs, a very obvious vicious circle. And evidence of type (2) is almost wholly lacking. That is, it is not shown that some determination of metaphysical beliefs by temperament may not also be determination by, e.g., the very object of those beliefs. It may well be that *some* metaphysicians are temperamentally better metaphysicians than others, their beliefs are determined by a temperament more in accord with, better suited to discover, the features of the world constituting their objects. And that this is not the case can hardly be made out by the psychologist; for it requires a knowledge of precisely those aspects of things about which the metaphysician makes assertions—i.e., it would itself be a case of metaphysics, and so fall under its own condemnation.

To make this more pointed, consider a certain type of materialism. It says that all metaphysical beliefs, as contrasted with scientific, are simply expressions of temperament, and that temperament, in turn, is wholly a function of physiological processes, such as secretion of endocrine glands, rate of basic metabolism, etc. There are, it would say, no spiritual forces or insights, only various physical

processes. Such a position, however, obviously displays the fallacy I shall call "assumption of special privilege." It supposes that its own materialistic metaphysical beliefs are not merely functions of its adherents' physiological processes, but are determined by their objects, e.g., the physiological processes of other metaphysicians.

But now let it be admitted that temperamentalism is itself metaphysical, and hence cannot be used to destroy all metaphysics. It follows that at least some determination of metaphysical beliefs by temperament is taken to be legitimate. We are now told that science alone is not enough, that life is more than scientific intelligence, that man is incurably metaphysical and instead of being ashamed of the fact he should openly avow it. Temperament may give truths forever closed to mere science. This deferential appeal to temperament may take two forms. First there is the aristocratic form, which supposes some temperaments are better, in this function of giving us metaphysical aperçus, than others. James' 'tough-minded' temperament is illustrative. But when we ask for a standard on which we may rank temperaments, difficulties arise. For it would seem that, apart from the human but unwarrantable tendency to elevate one's own type of temperament to first place in any comparison, the only standard forthcoming would be one which takes account of objective fact, which says, "That temperament is metaphysically more reliable which is more in accord with, i.e., can give us a less warped account of, the general nature of existence and knowledge." But this is unmistakably an abandonment of temperamentalism.

The other deferential form of temperamentalism is democratic. It asks us to be tolerant, to remember that we are all metaphysicians at heart, that no one can legitimately set up his temperamental reaction to the universe as better than another's. F. C. S. Schiller's relativistic temperamentalism is illustrative. This of course requires a relativistic theory of truth, at least as far as metaphysical issues are concerned. If the tendermindedness of an idealist is equally

good, as a determinant of metaphysical beliefs, as is the tough-mindedness of a materialist, then "The world is my idea" is equally as well established as "The world is bodies in motion." Each is true for its advocate, false for its opponent and there is an end to the matter.[16] But is this temperamentalism as democratic and tolerant as it would make out? Suppose it faces an aristocratic temperamentalist or a non-temperamentalist. Then it blandly asserts its own tolerance by saying, "of course my democratic temperamentalism is simply true for me; it is not true for you, *your* view is true for you." Isn't this the very acme of tolerance? No. It is one of the most despicable (since dishonest) forms of intolerance. For such a statement (in quotes above) presupposes the universal truth of non-relative temperamental relativism and the falsity of any opposing view. To be really tolerant it would have to say not merely "Your denial of temperamental relativism is true *for you*" (for that would be entirely compatible with the truth of temperamental relativism, and is not at all what an opponent claims), but also "and it may be true *in an absolute sense,* quite independent of the temperament of its advocate." But if the temperamental relativist thus really becomes tolerant, he has fallen into self-contradiction: he has admitted a non-relative truth. However, he need not blame his excessive tolerance. He supposed from the beginning that temperamental relativism was true in a non-relative sense, was true for every temperament, even those to which it was not temperamentally attractive. Thus his position essentially requires the fallacy of the assumption of special privilege. And this, I think, is the case with all forms of temperamentalism. Each supposes *it* has the 'low-down' on all types of temperament and their relation to metaphysical beliefs, that the temperament of *its* advocates can be disregarded, that it is determined by objective fact, all *other views* by the temperament of their advocates.

Besides temperamentalism let us consider what I shall call "definitionism" as an example of a view of metaphysical method stressing its basic difference from scientific method.

Science, on this view, is basically concerned with ascertaining the truth or falsity of propositions, metaphysics simply with the laying down and analytical elaboration of definitions of its characteristic terms, such as 'existence' or 'knowledge.' It is supposed that definitions are not judgments, involve no element of assertion, thus cannot be true or false, though they may be more or less 'convenient.' Rather, definitions are simply expressions of arbitrary volition as to how the author intends to use the term defined.

Now let us inquire as to definitionism itself. Is *its* position simply a matter of definition—does it simply say, "I define 'metaphysics' and 'definition' so that it follows that metaphysics is not concerned with questions of truth and falsity"? If so, then definitionism is merely an expression of the arbitrary volition of the definitionist, is neither true nor false, and cannot oppose other views as to the difference of metaphysical from scientific method. If it be definitional in basis, it cannot say, "There is no other way of reliably ascertaining truth than the scientific," for this would be passing judgment; nor again can it say, "No metaphysician, so-called, has ever in the past, or will in the future, do anything but lay down and elaborate definitions," for this again would be passing a judgment. This surely is not a very formidable foe to any other view of metaphysical method.

On the contrary, let us suppose definitionism to be non-definitional in basis, to be assertive of fact. Then it is claiming that the enterprise commonly referred to as "metaphysics" is simply a process of defining, and that the process commonly referred to as "defining" is merely a matter of expressing one's arbitrary intention as to the use of the terms defined. If definitionism be thus assertive, it is definitely false. For most metaphysicians, so-called, e.g., Plato, Aristotle, Thomas Aquinas, Spinoza, have not simply laid down and elaborated intentions as to their use of words; they have made claims, passed judgments, about the nature of knowledge and about what exists and what

it is to exist. If it be said that they really didn't present any empirical evidence for the truth of their assertions, that what they thought was evidence was simply an elaboration of definitions previously laid down, one could retort that this is not so, that some of them, at least, present some empirical evidence. But supposing it were so, still definitionism would not be true. For definitionism claims that metaphysicians simply lay down and elaborate definitions which make no claims, whereas, on the supposition, the truth would be that metaphysicians make claims but offer no evidence, what they take to be evidence being simply an elaboration of definitions. Surely one can distinguish between making claims without supporting evidence and not making any claims at all. If our supposition above about the actual method of metaphysicians were correct, then that method was definitely bad and confused (purporting to give evidence when it didn't); whereas the method of metaphysics as portrayed by definitionism would be, so the definitionist supposes, quite above reproach, logically.

Finally, the definitionist may mean to assert that, since metaphysicians in the past have presented no evidence for their assertions other than elaboration of their definitions, consequently, in the future they ought to make no assertions but restrict themselves to defining their terms. I am not satisfied that the definitionist has or can establish the antecedent here, but even if he had, the consequent would not follow. The actual use of a bad, confused, irrelevant method to establish a claim is not proof that no acceptable method of establishing the claim can be found and that therefore the claim should be relinquished. The definitionist can prove the above consequent only on the assumptions that no method of establishing metaphysical claims can be found, and that no claims should be made for which no method of verification can be found. But at least the first of these assumptions is highly unacceptable: it would presuppose a general view as to the nature of

knowledge which, as completely general, would itself be metaphysical.[17]

The objection to the tendency illustrated in temperamentalism and definitionism is that it tries to find in metaphysical method some single, positive factor marking it off *toto caelo* from scientific method. The greater generality of the subject-matter of metaphysics does mark it off from the sciences, still it does not make metaphysics wholly different from or independent of the sciences. The sciences generalize, and their generalizations are the best established of any with which the metaphysician of today is acquainted. Therefore it behooves him to use scientific generalizations, as far as possible, as the basis of his own wider generalizations. This means negatively that his theories should agree with scientifically respectable doctrines, they should not require the truth of scientific views which no reputable scientist in the science involved holds.[18] Thus a metaphysical system requiring the fixity of species, a clear break between lower forms of life and man, a beginning to temporal processes not ante-dating the first appearance of consciousness (say with the anthropoids on our planet), a "fifth essence," i.e., the composition of heavenly bodies out of a substance not found on our planet,—such a metaphysical system in-so-far as involving one of these scientifically objectionable doctrines is itself objectionable. Now since what is scientifically respectable changes with the progress of science, it follows that metaphysics is subject to change. It does not follow that the aim of metaphysics is to change (it is not the aim of science to change). But though the aim of the metaphysician be to attain a perennial philosophy, he should humbly accept it as his lot, under present circumstances, dependent as he is upon changing scientific theories, to achieve only a set of beliefs subject, to an unascertainable degree, to modification in the light of future scientific findings.

Positively, this utilization of science by metaphysics means that metaphysics need not attempt to build from the ground

up, to make its broad generalizations wholly and directly from particular instances. It can generalize from scientific generalizations. Such a process is in part sheer induction. But an induction based on highly general propositions themselves established by the hypothesis-deduction-verification method is more reliable than one attempting to establish an equally wide generalization directly from particular instances. The generalization that every physical thing has more properties than have ever been directly experienced by the unaided senses would be very feebly established by sheer induction, but induction superposed on scientific theories (of atoms, micro-organisms, etc.), themselves established by the hypothesis-deduction-verification method, may give it a pretty firm footing.

This does not mean that the function of metaphysics is simply to accumulate and perhaps systematize the theories of the sciences, to give us an "encyclopedia of the sciences." Such a collection simply gives us some (albeit the most general) propositions as found in the sciences. The task of metaphysics is to generalize further on the basis of scientifically established propositions; i.e., to establish, by induction from scientific propositions, propositions that do not occur, at least explicitly, in the sciences at all. The materialist, in seeking to establish his proposition that all existents are physical, usually appeals ultimately to scientific theories, but his proposition is not a scientific theory, and any relevant evidence for it from the sciences involves a process of further abstraction and generalization not present in its scientific bases. This does not mean that encyclopedias of science[19] are valueless; in fact, they are almost a necessity for the modern metaphysician in this day of specialization in science. But they are not metaphysics.

Metaphysics, in utilizing science, must go beyond induction. For, in the various sciences themselves there are recognized contradictions, viz., rival respectable theories, e.g., discrete and continuous theories of radiation in physics, Gestalt and behavioristic theories of learning in psychology.

Further, the process of comparison and abstraction involved in metaphysics brings to light contradictions not recognized in the individual sciences themselves, e.g., certain physiological and sociological accounts of sense perception. Now if it be supposed, as probably every one is willing to suppose, that an acceptable metaphysical system must be free from contradictions, then metaphysics must do something about these contradictions found in science, it cannot build on them by sheer induction. In the first place, it can seek to "generalize beyond them," to ignore them by finding some common features, sufficient for its purpose, in both or all of the conflicting theories. The metaphysician can ignore the conflict between various rival theories of amoeboid motion or of specific genetic function of certain chromosomal segments, since the controversy here is not over sufficiently general matters. In some instances however the metaphysician must take sides in scientific conflicts, he must decide which of the contradictory views he will accept and which reject. I think this is the case in the psychological controversy between extreme behaviorism, denying the fact of consciousness, and other theories asserting it, in various forms. This issue has an important bearing both upon the nature of existence and the nature of knowledge. We may perhaps lay it down that the metaphysician must take sides in any conflict of scientific theories where the conflict is over very general issues, issues obviously highly significant for any metaphysical positions.

If the metaphysician is to take sides in scientific controversies, it follows that scientific propositions cannot be the only grounds for metaphysical generalizations. What others are there? Let us look at four others of historical importance. First there is divine revelation. This can be easily dispensed with. Its main (and I believe most intelligent) advocates, the Thomists, make revelation a ground of theology only, not of metaphysics. Furthermore, the fact of many incompatible claimants to direct divine inspiration suggests that an utterance or scripture be not accepted as a divine revelation simply on its own claim to be such.

And the objective grounds here must not only show that *this* candidate, *versus* its rivals, is a divine revelation, but also that there *is* a divine revelation, i.e., amongst other things, that there is a God who can directly reveal himself. For although all claimants to divine inspiration agree that there is a divine inspiration, their disagreement as to what is an instance of it makes us sufficiently skeptical of the general fact of divine inspiration to demand a further basis than these mere claims themselves. Usually they purport to give some further evidence; e.g., miracles, the purposiveness of nature or of history, etc. But all this is itself metaphysical, presupposes a metaphysics not itself established by the supposed revelation, but rather establishing that revelation.

Another appeal is to intuition. I shall mean by 'intuition' self-evidence. A belief is self-evident if what is believed is complete evidence for its truth, so that no further evidence could add any evidential weight. My answer to this is properly a whole analysis of knowledge and the function of evidence therein. For the present, let us note that it seems strange that any self-evident belief should ever be rejected or even questioned, yet probably all proposed intuitive truths have been questioned by someone. The intuitionist might reply that the self-evident belief is not questioned, but only some other, which has been confused (through symbolic similarity of expression) with it. This of course is possible, but is it at all probable *in all cases?* Many intelligent, informed, and honest men report they find no self-evident beliefs. Is it probable that no one of them ever has entertained a self-evident belief if there really are self-evident beliefs? And if self-evident beliefs are so rare in occurrence, they can hardly be very significant for metaphysical inquiry, unless that endeavor be far more esoteric than even the general public supposes it to be. Moreover, what of those experts who, through further investigation, have given up self-evidence where once they relied on it? The history of mathematics gives a striking illustration. At one time, all mathematicians accepted self-

evident axioms. Now, very few do. The same is true in logic. And these fields are usually taken to be the home and citadel of self-evidence.

In trying to find an extra-scientific basis for metaphysics, I get no help whatever from divine revelation or intuition. The case is somewhat different with common sense. By 'common sense' I shall refer to beliefs very generally accepted (tacitly or explicitly) by people of widely differing social groups (economically, geographically, racially, temporally, culturally) and of widely differing temperaments. What is common sense is, of course, a matter of degree. There are probably very few, perhaps no, beliefs actually accepted by all human beings, though there are some candidates for this position, e.g., "There are other existents besides myself," "Something has happened in the past," "Some entities persist longer than others," "Some entities persist longer than my direct experience of them."

I think it is silly, the sign of an unbalanced, hypercritical temperament, to be skeptical of common sense indiscriminately, in wholesale fashion. Granted that, however widespread a belief (not merely in numbers but in total contexts of its adherents), its source is probably in part some common social tradition or emotional satisfaction, still, the veriest skeptic of common sense on paper lives on the acceptance of a large amount of it in his every-day behavior. My plea is for intellectual honesty here, even though it requires swallowing a bit of our intellectual pride. What we would not hesitate to accept behaviorally, let us intellectually assent to as an article of faith. And why may we not assume that a belief accepted by people of widely different cultural, economic, temperamental, and educational status reflects to some degree some common objective feature of the world?

But though it is silly (since apparently impossible) to deny common sense in a wholesale fashion, we should be skeptical of it in a retail manner. Every belief of common sense should be subject to the following treatment: "That you are part of common sense is in your favor, but not

very much; it is not so much evidence of your truth as it is a stimulus for our acceptance of you on faith. Therefore if there are grounds for your rejection, we cannot retain you, however much we may like you." Such grounds for the rejection of an article in the creed of common sense are (1) an incompatible belief with a better status as common sense, i.e., a wider spread of acceptance, (2) rejection by the consensus of scientific thought of the time, (3) incompatibility with (though not difference that may supplement) one's own direct experience.

Once we have sifted our common sense beliefs on the basis of these tests we may and should accept on faith those which come through unscathed, though we should accept them not as indubitable but as probably reflecting some aspect of objective fact, though also, to an undetermined degree, reflecting various traditional and emotional factors in our common human nature. My argument for acceptance of a modicum of common sense is that we all actually, in behavior (though not always in statement), do accept it, that science, even the most critical and paradoxical to the 'man in the street,' does so, and that any positive point of view whatever in metaphysics is based in part on faith, and the common faith of mankind is probably a safer basis than the idiosyncrasies of a particular metaphysician.

Common sense, then, offers us an extra-scientific basis of metaphysics which we may accept with some confidence if we are properly critical of it. Far more important, however, is direct, sensory experience. I would go so far as to say that direct experience, especially in the form of articulate perception, is the best and hence the final test of any metaphysics (just as it is of any scientific theory). This conclusion is based partly on common sense, partly on actual scientific procedure, but mainly on an analysis of the nature of knowledge and the place of evidence in it which cannot be gone into in the present context.

But even direct experience does not give us certainty; it is itself unreliable. We have found it to contain illusions, to be modified by our theories, to be available largely only

through memory, which is not always above suspicion. If it is unreliable in particular instances in these respects, is it trustworthy anywhere? Against these defects, however, we are not wholly helpless. Illusions are often revealed by other direct experiences, and we have thereby found some rules aiding us generally in spotting certain kinds of illusions. Again, though our direct experience may be modified to an unascertainable degree by our theories and thus cannot be had "pure," still we may get around this difficulty by seeking how far it will prove tolerant of modification by our theories. Instead of trying to eliminate all our theories from our direct experience, we can attempt to eliminate all incompatible theories, to read our experience wholly and consistently in the light of a set of compatible theories, and count these theories established to the degree direct experience allows this to occur.[20] This means that a metaphysical theory cannot be significantly tested by a few instances from direct experience. A metaphysical theory should be carefully elaborated and rigorously applied or read into as much of direct experience, and as varied direct experience, as possible. It might well be that as we approximate this, all known metaphysical theories find themselves obstructed somewhere by recalcitrant direct experience. I am rather inclined to think that that is the situation we are in to-day. Should we then reject them all, equally, and give up the metaphysical enterprise entirely? Such would be the counsel of despair. I would advocate that we select a "best available at the time" (on the basis of degree of success in reading direct experience in its terms) and attempt to get on by developing it.

This leads us into the issue as to the verificatory significance for a metaphysical theory of particular instances drawn from direct experience. The distinction here between a scientific and a metaphysical hypothesis is important. A scientific hypothesis can have significant positive verification in particular instances, since it states a relation between variables. If particular instances are chosen giving values dispersed through the range of these variables, then their

verificatory significance is high, even though their number be few relative to the total number of instances that would fall under the hypothesis. But metaphysical hypotheses concern universal constants or transcendentals (or approximations thereto). Now a set of particular positive instances does so little to establish such an hypothesis that they had best not be called "verifications" at all. Yet they do have a rôle in metaphysics. I shall speak of it as "illustrative" and the instances as "illustrations." The function of an illustration is two-fold. First it clarifies, by giving a concrete application of the hypothesis. This it may do by means of a highly typical case, a case where the hypothesis is manifestly exemplified, or by a highly atypical case, by attempting to show that the hypothesis really fits a supposedly disverificatory instance. Secondly, an illustration stimulates imaginative insight. By "imaginative insight" I mean a cursory, memorial-imaginative survey of a large section of direct experience for the purpose of sizing it up, of seeing whether it squares with the proposed hypothesis. Here particular items are not dealt with individually unless one runs across an item that might seem to be disverificatory, when it is thereupon singled out for individual consideration. It is analogous to the perceptual process of sizing up a whole perceptual field, as a good motorist sizes up his whole visual and auditory experience only attending specifically to items of more immediate danger. This process is important in metaphysical method, since it aids in locating possible disverificatory instances, or aspects of a large number of instances which (aspects) are incompatible with a proposed hypothesis. Disverificatory instances are just as decisive against a metaphysical as against a scientific hypothesis. Thus relative to verificatory instances they are far more important in metaphysical procedure than in scientific. Yet unquestionable disverifications in metaphysics seem to be rather rare, certainly far rarer than in science. This is partly due to the way metaphysicians use language. When supposedly caught by a disverificatory instance they reinterpret their hypothesis so that the words are made

to harmonize with the supposedly disverificatory case. This disingenuous use of words is highly deplorable. It is to be hoped that the increasing interest in linguistics in philosophy will help to abate this evil.[21] It should come to be recognized that to propound a plausible metaphysical hypothesis which yet can be definitely disverified, and perhaps itself clearly states what sorts of instances would be disverificatory, is far more respectable than to propound one so loosely and ambiguously conceived and stated that no decisive disverification is possible. But we must not suppose that the disingenuousness of metaphysicians is the sole cause of the relative infrequency of decisive disverifications in metaphysics. A metaphysical hypothesis attempts to be completely general (or to approximate thereto). There are relatively few words in current usage that are completely general. If ordinary language is to be used, the metaphysician is almost forced to swell the extension (to impoverish the intension) of the words he uses. This, of course, is an excellent argument for the development of a technical terminology. But this way is not so easy as it might seem, for a technical terminology, to be significant (to be "interpreted" and not merely formal), must, in its undefined elements, be translated either into ordinary language or into non-linguistic symbolic behavior (such as pointing), and the latter translation is extremely difficult, perhaps impossible, in the case of universal constants. Furthermore, quite apart from the symbolic expression of them, the metaphysician's hypotheses are themselves of such a nature as to make decisive disverifications less frequent than in science. The typical phenomenon the metaphysical hypothesis seeks to describe is a universal constant. There are no instances of anything not instances of it. Thus wherever there is a case satisfying the description, the phenomenon must be present. This rules out a whole type of disverificatory instance as found in science, i.e., where the conditions are satisfied but the phenomenon is not present, or not present to the degree required by the hypothesis. The only sort of disverificatory instance for

a metaphysical hypothesis is where the phenomenon is present but the generalized description does not fit. For example, the materialist might say, "To be an existent is to have spatio-temporal location." We could not hope to disverify this by trying to find something with spatio-temporal location which does not exist, though we might significantly try to find an existent which does not have spatio-temporal location. Verification in science requires negative but verificatory instances (negative in that the phenomenon is absent, verificatory in that the hypothesis requires it to be absent under the given conditions), and this immediately gives definite meaning to the possibility of negative disverificatory instances. But metaphysical hypotheses (at least in the extreme) recognize no negative instances.

Metaphysicians should strive to overcome this handicap as far as possible. Since decisive disverification is possible in metaphysics, it should become a methodological desideratum, not merely in the sense of a dialectical weapon to use against rivals, but in the more fruitful sense of a control in the formulation of one's own hypothesis. A metaphysical hypothesis is better (other things disregarded) if it indicates more clearly what sorts of instances from direct experience would constitute decisive disverifications of it.

We must not suppose, however, that the only evidential rôle of direct experience relative to a metaphysical hypothesis is as a field of possible disverificatory instances. Important as is the rôle of imaginative survey of direct experience for the purpose of hitting upon disverificatory instances, this process also can serve the purpose of positive corroboration. Single instances, however numerous, go only a very little way in verifying a metaphysical hypothesis. But we are not to suppose that we can get at direct experience only *seriatim,* in a larger or smaller number of particular bits. Such a view is a hang-over from associationistic psychology. Direct experience has its aspects of continuity and persistence as well as of discreteness and varia-

tion. We are just as close to it, just as true to it, when we imaginatively survey large sections of it, in terms of pervasive aspects of it, as when we try to remember particular bits, as different from all other bits. Such an imaginative survey may result in a positive imaginative insight of real evidential weight for a metaphysical hypothesis. And especially is this true if we add "imaginative experiment" to this survey. I do not mean an "imagined" experiment. An actual experiment is an actual modification of particular existents in order to test some hypothesis. I suppose an imagined experiment would simply be an imagined modification of this sort. The imaginative experiment I have in mind is one which could not be carried out actually, for it involves a modification not of this or that particular but of all of direct experience in some respect. What would our color-world be without any actual experience of green? Would we have any notion of spatial relations if we had no visual or tactile experience? Here the appeal is to an imaginative survey-type experiment.

All this may sound pretty indefinite and subject to all sorts of subjective vagaries when compared with rigorous scientific verifications. This must, I fear, be granted. The metaphysician has not and, if I am right, never will achieve a method as rigorous as the scientific. Yet he must do the best he can with his own method; to attempt to use a strictly scientific procedure in his non-scientific subject-matter is a mark of immaturity, of childish imitativeness that seeks the semblance without the substance of adulthood. And there may be some recompense for this lack of rigor. The very fact that a metaphysician must rely on a total insight, that he has no mechanical procedures, formulae that may be used without appreciation of their derivations or presuppositions, which can be handed over to clerks, gives him a sense of creative discovery which, though the source of many dangers, is also the cause of enduring satisfaction. And it must not be supposed that scientists are free from this reliance on imaginative survey and insight. It is present in their own procedure when they

jump to their hypotheses, before the application of rigorous procedures of verification; and to some extent it is involved in scientific verification itself, viz., in deciding what lines of deduction will probably yield conclusions that can be checked against direct observations. Again, every scientist as soon as he steps out of his own special investigations and philosophizes relies on this procedure. For example, Eddington's contention that the objects of scientific knowledge are, ultimately, pointer readings, or Bridgman's assertion that scientific concepts are reducible to operations —these are not established by any rigorous scientific procedure of experiment, of hypothesis-deduction-verification. Instances are used illustratively, to instigate an imaginative survey. The final appeal is to insight. And (though I do not agree with their results) their method here has been appropriate, not as reliable as scientific method but more relevant to the sort of hypothesis involved.

But if metaphysical method is, though the best available for metaphysics, yet highly unreliable, it behooves us to use it with great caution. Let me lay down specifically certain admonitions. We must always remember that since the most rigorous scientific method cannot attain certainty, metaphysical propositions should be put forward even more tentatively. We must remember that disverificatory instances are far more significant in deciding between the claims of rival metaphysical hypotheses than are verificatory, thus we should construct our hypotheses with this in mind, and constantly be alert in weighing them and in advocating them for disverification. We must ever be watchful that we appeal to imaginative survey and insight with complete honesty, as methods of critical inquiry, not of "rationalization" or "wishful thinking." This means not so much that we attempt to get at any "pure" experience, but rather that we be scrupulously honest with rival theories, that we try earnestly to survey experience from the standpoint of each of them, not allowing our satisfaction with any one to keep us from a sincere attempt to see how tolerant experience is of others.

These admonitions lead to a final consideration. Though controversy between rival hypotheses is important in science (without it, hypothesis-deduction-verification would reduce to a form of sheer induction), it is in metaphysics that controversy has its greatest methodological significance. It is high time that metaphysicians cease being apologetic on this score. The aim of metaphysics, as a science, is knowledge, not agreement. And whether or no agreement will actually result after knowledge has been attained, in the process of trying to attain knowledge controversy is highly valuable, whereas premature agreement is disastrous. When the issues are extremely general, when positive verification largely rests on wide imaginative survey, when there is great danger of ambiguity, and decisive disverificatory instances are relatively few, then theoretical controversy becomes extremely important. Every human mind tends to be dogmatic, to favor an already accepted and familiar hypothesis, especially if popularly identified with that individual, to short-circuit the tedious process of revision of old hypotheses and testing of new rivals. These normal human tendencies are quite effectively countered in science by its more rigorous procedures of verification and disverification. In metaphysics they must be more directly and crudely checked by the putting of advocate against advocate. And though this opposition easily degenerates into emotionalism, when it can be kept on an intellectual plane, when it can occur imaginatively in each of the opposing advocates (and not merely actually, between them), then it is of the highest value in the metaphysical enterprise.

1. The self-styled practicing "metaphysicians"—the theosophists, Rosicrucians, Christian Scientists, *et al*—only add to the disrepute of metaphysics by their promises of practical effectiveness.
2. I do not mean that there is a simple one-way dependence of, say, ethics on axiology, axiology on epistemology, epistemology on ontology. I mean that ethical views do have effects in action and that they are in part determined by, or include, metaphysical assumptions.
3. By 'actionism' I mean the belief that theoretical inquiry is only justifiable by, and finds its only criteria of success in, its effects upon overt activity.

4. Let me add in fairness that, despite many condemnations of "metaphysics" (in a bad sense, *i.e.*, rationalistic or "transcendental" metaphysics), Dewey would seem to accept an empirical metaphysics, stating the generic traits of all existents (*cf. Experience and Nature*, pp. 412 ff., and *The Philosophy of John Dewey*, edited by P. Schilpp, pp. 597 ff.). My only quarrel here would be with Dewey's tendency to refuse to judge such a metaphysics abstractly, on the basis of purely cognitive evidence.
5. A single example, however, will suffice to show that the two are not the same: present-day astronomy, though having some practical applications, is of far less influence upon action than medieval astrology, though it is far more specialized.
6. It is quite possible for metaphysics to be wholly or largely descriptive while yet generalizing from sciences which are to a great extent explanatory. One of its tasks would be to describe scientific explanation.
7. More accurately, it is concerned with the formal relations of such sentences, not with the individual sentences.
8. An extreme form of neo-platonism, for example.
9. I here omit difficulties about future possible discoveries of new methods of verification.

9a. Since writing the above I find that both Ayer, *The Foundations of Empirical Knowledge*, §9, and Russell, *An Inquiry Into Meaning and Truth*, ch. x, criticize the tendency of the logical positivist to define 'protocol sentence' wholly formally (in terms of language-rules). I am not clear as to whether Carnap, in his *Introduction to Semantics*, which I have just seen, means to agree. He apparently holds that "pure semantics" can treat designation at the zero (object) level as simply a function of language-rules. All considerations of non-linguistic designata apparently are relegated to "descriptive semantics" (which I take to be a form of an empirical science, viz., philology). Neither Ayer nor Russell specifically point out that if the distinction of protocol from other sentences is (though highly general) an empirical matter and yet is properly investigated by philosophy, then philosophy is not reducible to the formal analysis of language.

10. The "spread" is the number of different deduced consequences which find confirmation in one or more observed instances, *e.g.*, the spread of Clerk-Maxwell's electro-dynamic theory was much greater than that of Newton's corpuscular theory of light.
11. For purposes of simplification, I omit the rôle of deduction, which in any case is simply iterative.
12. Obviously what is function and what argument is arbitrary so far as the hypothesis itself is concerned.
13. I shall not say "explain." I mean by 'explain,' "find a cause of," and by the latter expression, "find an invariant obtaining despite variations." Thus we could not "explain" a constant or a persistence, but only variations.
14. Metaphysics is not restricted to the study of universal constants or completely general propositions. It also investigates less general matters. But in so doing, it tends to overlap with the sciences, in their more theoretical portions, and thus the distinction from the sciences is,

in this field, less clear. Thus I characterize metaphysical inquiry as completely general in order to make more apparent its difference from scientific investigation.

15. Not all metaphysicians would agree, but neither would they agree as to the subject-matter of metaphysics. All of metaphysics is controversial. I have already introduced *my sort* of metaphysics in this essay.
16. Obviously relativism and skepticism are bed-fellows.
17. If the definitionist's view of definition (as simply an expression of arbitrary intention, i.e., inclusive of no assertion or claim) be itself an assertion about any or all of the generally recognized forms of definition, it is false.
18. Clearly I do not mean to rule out, as scientifically unrespectable, views which are not scientific at all, simply on the grounds that scientists, qua humans, not qua scientists, pooh-pooh them.
19. Of course what is labelled an "encyclopedia of the sciences" may be more or less metaphysical. I am here thinking of assemblages, collections of more general scientific propositions not, however, compared with one another nor generalized beyond their status in the sciences involved.
20. If direct experience is *wholly* tolerant of each of two incompatible theories, then their incompatibility is only "apparent," is "meaningless."
21. Possibly the "definitionist" means only to do the sort of thing I here advocate. If so, I am heartily in accord.

SELECTED BIBLIOGRAPHY

Ayer, A. J.: Language, Truth and Logic, 1936

Ayer, A. J.: The Foundations of Empirical Knowledge, 1940, esp. Pt. 2, par. 9; Pt. 5

Carnap, Rudolph: Introduction to Semantics, 1942

Carnap, Rudolph: The Logical Syntax of Language, 1937

Carnap, Rudolph: Philosophy and Logical Syntax, 1935

Cohen, M. R.: Reason and Nature, 1931, esp. Bk. 1

Ducasse, C. J.: Philosophy as Science, 1941

Hall, E. W.: "Is Philosophy a Science?", J. of Philosophy, 1942

Hall, E. W.: "Of What Use Is Metaphysics?", J. of Philosophy, 1938

Hook, Sidney: The Metaphysics of Pragmatism, 1927

Maritain, Jacques: The Degrees of Knowledge, 1937

Pepper, S. C.: "The Root-Metaphor Theory of Metaphysics," J. of Philosophy, 1937

Russell, Bertrand: An Inquiry into Meaning and Truth, 1940, Esp. chs. 10, 21, 25

Whitehead, A. N.: The Function of Reason, 1929

THEOLOGY AND METAPHYSICS

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The writer's interest in the mutual relations of religion and philosophy, or more particularly of theology and metaphysics, having been awakened in college years, became suddenly acute soon after beginning graduate studies at the University of Chicago a generation ago. I had gone there to take courses in theology and philosophy after having come under the influence of the neo-Hegelian idealism then still dominant in many of the more progressive universities of the English-speaking world. I was inclined to agree with Hegel that theology was philosophy, or more particularly metaphysics, and that philosophy was, or at least culminated in, (metaphysical) theology. In the Graduate Divinity School I encountered a metaphysically agnostic Kantianism and Ritschlianism, while the vigorous Department of Philosophy was thoroughly and indeed enthusiastically committed to the functional psychology and essentially positivistic instrumentalism, or pragmatism, of John Dewey and George H. Mead, so that it was quite out of sympathy with the aims and methods of speculative metaphysics and metaphysical theology. For some months I put up a stiff fight for my neo-Hegelian rationalism, but as a result of directed studies in a number of theological and philosophical seminars, I was at length led to take a less favorable view of absolute idealism and a more favorable view of pragmatism in philosophy and Ritschlianism in theology. I had at least to make such admissions as that the structure of our thought is largely determined by the function it is designed to serve, that in the scientific verification of judgments a pragmatic or instrumental test—the working of a working hypothesis—is involved, and that

at the heart of much of the religiously vital and most essential content of our theological systems there is to be found an implicit or explicit religious value-judgment.

I was never completely converted, however, either to the pragmatism of the philosophical department or to the Ritschlianism of my theological teachers. While ready to acknowledge both the instrumentalism involved in scientific method and the religious character of theology, I remained strongly of the opinion that the truth interest could not be fully stated in purely instrumental terms and that there was a religiously pragmatic as well as intellectual need for applying to our value-judgment theology the objective test of metaphysical reasonableness in the light of our scientific knowledge as well as of our most critical estimate of values in general. After I had definitely formulated for myself these principles of theological method, I was greatly encouraged when I found a rather similar position ably defended in Georg Wobbermin's *Theologie und Metaphysik,* as well as in certain passages in the writings of Max Scheibe and Ernst Troeltsch. With Wobbermin I was ready to defend not only the philosophical legitimacy of metaphysics but also the thesis that, properly speaking, "theology without metaphysics is impossible." In making statements about an existent Deity, theology was already in the metaphysical field and under obligation to treat its subject-matter accordingly.

I had not been in the classes of my philosophical and theological instructors for many months before I resolved to take as the subject of my doctoral dissertation the mutual relations of theology and metaphysics, intending at first to treat the whole subject historically, critically and constructively. The topic, as I envisaged it, fell naturally into four main divisions: (1) The Reaction against Theology in Metaphysics; (2) The Reaction against Metaphysics in Theology; (3) The Function of Theology in Metaphysics; (4) The Function of Metaphysics in Theology. I had not gone far with my special studies, however, before I saw clearly that any one of these four sub-topics would

open up more material than I could manage to cover satisfactorily within the limits of a typical doctor's dissertation. I accordingly decided to confine my discussion for the time being to the second of the four divisions, namely, to the reaction against metaphysics in theology. Moreover, as it finally turned out, the study, in so far as it was really intensive, was largely confined to an investigation and criticism of the reaction against metaphysics in Ritschlianism and pragmatism.

In the course of the subsequent years many topics, philosophical and theological, have engaged my special interest; but at no time have I undertaken to fulfill my original intention of rounding out in written form my study of the mutual relations of theology and metaphysics by adding to the dissertation a similar development of the other three aspects of the general subject. Nor does it appear likely that I shall ever take up the project in anything like its original scope and form. It does seem feasible, however, to take advantage of this occasion of an invitation to contribute an essay to a volume on Living Schools of Philosophy to indicate in a rather summary fashion the position which, it still seems to me, is not only supported by the facts of the mutual relations of religion and philosophy, of theology and metaphysics, in history, but also by reasonable considerations of logic and methodology. In attempting this I shall follow out my original intention so far as to treat the subject under the four principal heads indicated above.

I

The Reaction against Theology in Metaphysics

Almost the whole of modern philosophy represents a determined reaction and persistent protest against the reign of theology in philosophy and especially in metaphysics, which was characteristic of medieval scholasticism. This is about equally true of the rationalist and the empiricist developments. Descartes professed regard for the authoritative teachings of the Church, but his real interest lay

in the project of building up a system of metaphysical truth which should be, if at all possible and apart from any consideration of external authority, as indubitable as his own existence as a thinking self. The genius of the new rationalist movement was well expressed in Spinoza's attempt to deduce with logical necessity from self-evident axioms and apriori definitions all the main tenets of metaphysics and ethics. It was not essentially different with the post-Kantian Spinozist, Hegel. For him logic was the sufficient key to reality, to metaphysics; not the traditional but the rational was the real.

Nor was the attitude of Francis Bacon and his empiricist successors greatly different. Beyond ambiguous and sometimes only half-meant words of respect for traditional authority there is a resolute commitment to the empirically scientific methods of observation and experiment. Not by quoting opinions and arguing, but by trying for oneself, these scientist-philosophers sought to read the riddle of existence. Despite their differences and mutual suspicions, rationalism and empiricism joined hands to dethrone the long dominant "queen" not only "of the sciences," but also and more especially of the philosophical disciplines, and above all, of metaphysics.

It was not without good reason that philosophy, both rationalist and empiricist, rebelled against the domination of the theology of the day. When we think of the method and much of the doctrinal content of the scholastic theology and philosophy before and in the days of Bacon and Descartes, we can only wonder that the philosophical reaction did not come sooner, and that when it did finally burst forth it was with as much outward deference as was manifested by the early leadership in both of the modern philosophical movements. Mediaeval scholasticism left philosophy free to follow reason and the facts of empirical investigation only in so far as nothing was said or logically implied which would contradict the authoritative teachings of the Church, the teachings of the Bible as interpreted by the Church being included. This was in accord with the long

established custom of the Church to demand implicit faith in its infallible authority in matters of religion and morals. The formula, *Credo ut intelligam,* was allowed the official *Nihil obstat,* but only with the understanding that no change should be made in the content of the *Credo.*

But it was not only in its method and way of seeking certainty for its doctrines, but in that doctrinal content itself that the old scholastic theology was rightly open to objection. In spite of all attempts to exhibit the rationality of what had been accepted in implicit faith on the external authority of the church, there were discrepant elements in the traditional dogmas which defied anything more than a merely apparent harmonization. For example, Anselm could produce an appearance of demonstration of the existence of God and, like Gregory of Nyssa before him, of the reasonableness of the doctrine of the Trinity from his Platonic point of view; but, not being able to square the orthodox doctrine of the divine and human natures in the one person of Christ with his Platonism, and being unable of course as a Platonist to coincide with the Aristotelian presuppositions which had served John of Damascus so well in this connection, he had to fall back upon the essentially pragmatic argument of the *Cur Deus Homo* to make up for the obvious discrepancy between the Chalcedonian formula and his metaphysical presuppositions. Another significant point in connection with the attempted metaphysical defense of the doctrinal content of the Catholic theology is the historic fact that while Anselm undertook to prove by argument all the main doctrines of the Church, Thomas Aquinas did not claim to be able to do so much, Duns Scotus had to confess that most of the Church dogmas were indemonstrable, and William of Ockham finally made bold to declare that all the doctrines must first and last be accepted on the metaphysically unsupported external authority of the Church alone.

But still more damaging in the end to the claims made for the old scholastic theology was the extraordinarily large place given in its doctrinal content to stories of miracle,

together with the claims to a sort of semi-magical, imperceptible miracle in connection with the sacraments. Here the objection from the point of view of any modern metaphysical system is not, or at least not primarily, that the doctrine is deductively indemonstrable or that it is discrepant with other accepted doctrines, such as those of the dependableness and the impartiality of God. Rather it is the objection that the doctrine tends to be excluded, as in the highest degree improbable, from the point of view of modern science.

It is easy enough to sympathize with modern metaphysics in its reaction against its former state of bondage to a theological authority so dogmatic and so inherently indefensible and improbable in its content as that of the old mediaeval scholasticism. For the sake of intellectual freedom, in the name of independent certainty and in the interest of a doctrinal content reasonably acceptable as true by the honest and well-informed modern thinker, the battle of modern philosophy against scholasticism commands our well-considered and critical approval.

In spite, however, of the rightful claims which this reaction against the older dogmatic theology in metaphysics has upon our sympathy and approval so far as its motivation is concerned, it remains to be pointed out that it has been carried so far in modern philosophy as to have seriously impaired the certainty at some points and greatly impoverished the content of philosophy itself, especially in its metaphysical aspect. It is hardly necessary to take pains to show how poverty-stricken is the metaphysical content and how defective the certainty in the more typical systems of present-day philosophy. Modern "logical positivism" is only one of the most recent of the metaphysically bankrupt philosophies. One is even tempted to suspect that the extraordinary vogue of "phenomenology" is due not so much to its value as a logical propaedeutic to epistemology and metaphysics as to its convenience as a field for the exercise of philosophical talent on the part of those who are prevented by their agnostic and positivistic prejudices

from progressing very far in the attempt to find a satisfactory solution of the perennial problems of philosophy as wisdom.

To put the whole matter in a nutshell, if, as I believe, religion at its best is a fruitful source of insight, not only into the validity of spiritual values but into the nature of reality also, and if, as is obvious, theology is a device for the conservation of such religious insights, it is easily seen that a total rejection of theology from making any contribution, however tentatively, to the doctrinal content of metaphysics must be expected to have seriously unfortunate sequences. Abstractly rationalistic and impersonal absolutisms, materialistic, merely naturalistic and merely humanistic systems are the logical consequence of an attempt to synthesize into a final world-view and philosophy of life only those insights which are attainable without religious intuition and only those empirical facts which are discoverable outside the limits of specifically religious experience.

And as for metaphysical certainty, while we have no intention of claiming that it is possible to reach it in perfection with regard to any system as a whole, nevertheless, in view of the necessarily incomplete demonstration and verification of even the most reasonable and scientific world-view, the measure of reassurance which comes from the knowledge that one's theory of reality is compatible with everything that can be inferred from the validity of our highest spiritual values, religious as well as ethical, is by no means to be despised as if it had no philosophical significance. Philosophy, it should not be forgotten, is not mere information as to matters of fact; rather is it the best wisdom of the lover of wisdom, with reference both to ultimate value and ultimate reality.

II

The Reaction against Metaphysics in Theology

If modern metaphysics reacted with decision against theology, theology eventually returned the compliment and reacted decidedly against metaphysics. There is no better

illustration of this reaction in the whole history of religious thought than is afforded by Ritschlianism; but Ritschlianism cannot be rightly understood apart from the influence of Kant and Schleiermacher. Kant's metaphysical agnosticism was the logical consequence of his epistemological dualism—a dualism and an agnosticism which have vitiated practically all German theology since Kant with the exception of the speculative theology of the idealists, and that was vitiated by the logical fallacies in all supposed demonstrations of the truth of idealism. Schleiermacher undertook to vindicate the autonomy of the religious consciousness, as against the intellectual, or scientific, and the ethical; and while we may doubt the *absolute* autonomy of the religious consciousness, we may yield credit to the great "father of modern theology" for having been right at least as to its relative autonomy.

Schleiermacher's antagonistic attitude toward the metaphysical element in theology can be seen not only in connection with his definition of religion but more especially in his proposal that instead of resorting to speculative proofs of the existence of God we should simply call attention to the universality of the feeling of absolute dependence. But there was an element of ambiguity, especially in his earlier thought, a tendency to oscillate between an almost pantheistic epistemological monism in religion on the one hand, and such a position on the other hand as could secure its theism only at the cost of abandoning any semblance of a monistic religious epistemology and frankly accepting the Kantian epistemological dualism, the logical consequence of which was metaphysical agnosticism.

Albrecht Ritschl's declarations on the subject of metaphysics in theology are very explicit and plainly reveal, as we have said, the influence of both Schleiermacher and Kant. He agreed with Schleiermacher as to the autonomy of the religious consciousness, and even if we grant that in his philosophy of the physical he may have been, as he himself thought, more of a neo-Kantian or Lotzian

idealist than a genuine Kantian, in his religious epistemology as a genuine theist but metaphysical agnostic he must be classified as a dualist. His opposition to the metaphysical element in theology was directed not only against the speculative theistic "proofs" and the older scholasticism, Catholic and Protestant; he was particularly antagonistic to the Hegelian absolute idealism, which for a time he had espoused.

In Ritschl and the more typical Ritschlians the rejection of metaphysical theology, which logically follows upon the dualistic religious epistemology of Kant and the acceptance of Schleiermacher's point of view as to the autonomy of the religious consciousness, was accompanied by the characteristic doctrine that religious judgments are valuational rather than existential. But this famous Ritschlian doctrine of the exclusively valuational character of religious knowledge must be taken with the proverbial grain of salt. Not to do so would be to follow the mistaken interpretation of Ritschl offered by his pupil, Bender. The theology of Ritschl and the typical Ritschlians, while explicitly valuational, was implicitly existential. This is evident from its genuine theism. God, for the Ritschlians, is an objectively existing cosmic power, theoretical knowledge of whom is indeed disclaimed, but concerning whose existence and nature room is left, as in the case of Kant, for faith. It is only in Julius Kaftan and his followers, who are more appropriately styled semi-Ritschlians than Ritschlians, that the theology of the Kant-Schleiermacher tradition becomes explicitly existential; but with them the valuational character of theology retires into the background and tends to become implicit only, rather than explicit. For them theology consists of theoretical judgments, none of which, however, is knowledge in the theoretical sense of the word, but all of which, as judgments of religious faith, are theoretical judgments *based upon value-judgments.* But for these semi-Ritschlians as well as for the more typical Ritschlians metaphysical speculation has no proper place in theology.

It is possible, even for one who does not fully share the epistemological dualism of the Ritschlians and semi-Ritschlians, to sympathize to a great extent with the underlying motivation of their reaction against metaphysics in theology. What these theologians, as well as Schleiermacher before them, were afraid of in connection with a metapyhsical theology was a twofold danger. They feared that the doctrinal content of the Christian religious faith and theology would be corrupted and that its characteristic certitude would be undermined. In this fear and protest they were not wholly wrong. Metaphysical speculation has sometimes introduced into religious thinking, along with some of the established truths of science, some of the unverified speculations and dogmas of some men of science, thus vitiating the doctrinal content of an originally pure and vital faith with "oppositions of science falsely so-called." In this way it sometimes happens that theology is "spoiled through philosophy and vain deceit"!

Similarly the characteristic certitude of the religious believer tends to be impaired, at least temporarily, when the doctrines of the faith upon which he has been building his life and his hopes for the future are treated as mere metaphysical theories, to be tested by their rationality and their agreement with empirical fact. What is referred to here, we hasten to point out, is simply a psychological tendency, not a logical necessity; and yet it must be admitted that in many instances the certitude tentatively and temporarily surrendered for the sake of final philosophical reassurance is never fully regained, a result which, if and in so far as the religious beliefs have been true and of vital importance, is nothing short of calamitous.

And yet, on the other hand, the deliberate refusal to submit the content of one's religious faith and theological belief to the test involved in philosophical reconsideration may foster in the individual himself and in others the doubt and suspicion that possibly the doctrines thus held on subjective grounds would not stand the test of objective examination in the light of unprejudiced reason and ascer-

tained empirical fact. And once such a doubt is sown in the mind, it is difficult to eradicate it. There is danger in thinking freely, lest the thinker be led into error or at least into doubt of the truth; but on the other hand there is probably even greater danger in not thinking freely, or at any rate in refusing to do so—not only the danger of missing important new truth, but the danger of establishing religious doubt as a persistent, trouble-making complex by the very effort dishonestly to suppress it from motives of suspicion and fear. And so in the end not only the characteristic certitude of religious faith may be lost, but its doctrinal content may be vitiated, even to the extent of being destroyed altogether.

The Ritschlians have had their own way of seeking to gain or regain assurance and objectivity for their faith. Refusing to seek objectivity in metaphysics, they followed Schleiermacher in finding a measure of objectivity by appealing to the way in which the religious consciousness of the individual was confirmed and reinforced by the similar religious consciousness of the religious community to which the individual belonged. This was fairly satisfactory so long as the issue was simply one between that religion and no religion; but when the question was raised as to which of several rival religious communions was to be taken as a valid guide to faith, the need of a further criterion of objective validity was acutely felt. It was one of the merits of Ritschl and his followers that they turned for objectivity to history, that is, to historic "revelation," as it was claimed, or in other words, from their Christian point of view, to the historic Jesus as having normative revelation value for faith.

This, we may agree, was a step in the right direction, whether the failure to seek objectivity in metaphysics as well as in history was or was not a mistake. It meant that there was now available, rather more conspicuously than in Schleiermacher's theology, the Christological or Christocentric principle as a norm for the Christian doctrine of

God. The divine value of the historic Jesus involved the Christlikeness of God: all that could be legitimately deduced from this principle was valid content for Christian theology; all that contradicted it must be rigorously excluded.

But, apart altogether from the question as to whether the historic norm ought not to have been supplemented with the metaphysical, there were two criticisms which were eventually made from within the theology of the religious consciousness itself against the adequacy, theoretical and religious, of the Ritschlian appeal for objectivity to history. When Ritschl, Herrmann and others wrote, it was assumed that there was no serious critical problem as to just what sort of person the historic Jesus was. The difficulty of this problem was no doubt exaggerated by the critics in the later "Hat-Jesus-Gelebt?" controversy; but it was almost as certainly underestimated by such liberals as those of the Ritschlian School. A second objection to the Ritschlian appeal to history was raised by Troeltsch and other *religionsgeschichtliche* theologians, namely, that for genuine objectivity the appeal should be to the whole history of religion, treated from the point of view of an unbiassed philosophy of history, rather than be a narrow, prejudiced appeal to a single historic religion, Christianity, as if in that religion alone could be found any fact having revelation value. Theoretically, this seems to have been an important criticism, but practically it may perhaps be doubted whether there is much which is of universal value in other religions which it is not possible to find within historic Christianity, and even Troeltsch's procedure in the end was to set forth an essentially Christian theology as having finality, at least for our Western, European-American culture.

A third criticism of the Ritschlian appeal to historic revelation is one which is perhaps not so commonly made in Germany itself as in other lands where the Kantian tradition of a dualistic epistemology is not so strong among theologians. This is the question as to how an independently existing divine Reality can possibly be revealed in either human history or human experience, if experience always

is and has been of the phenomenal only. It would seem that according to Kantian and Ritschlian presuppositions what is called revelation can never be the real presence of divine reality within the field of human experience, observation, and *knowledge,* but always only the appearance of an historical or other empirical content which is *believed* to be, *qualitatively, as if* it were an actual manifestation of the Divine. From the point of view of this criticism real *revelation* and real *religious* knowledge are impossible on Ritschlian principles; it is only "revelation," so-called, and "religious knowledge," so-called, that are possible.

Sympathy has been expressed here for the Ritschlian reaction against metaphysics in theology, so far as its motivation is concerned. It aimed to conserve the peculiarly religious and Christian certitude and doctrinal content unimpaired and undiminished. But when the reaction is made so extreme and the autonomy of the Christian religious consciousness is taken as so absolute as is the case with the Ritschlians, it is a fair question whether it does not in large measure defeat its own intended end. When the testing of the rational permissibility of any religious dogmatic in an objective and intentionally impartial metaphysical inquiry is what is proposed, and when the exponents of theology refuse to sanction the project, doubt is almost inevitably suggested as to whether the doctrines in question are reasonable enough and true enough successfully to stand such a test. Thus the native hue of religious assurance comes to be, in spite of itself, sicklied o'er with the pale cast of sceptical thought and as a result not only is the religious certainty impaired; much or possibly all of the doctrinal content may ultimately be lost.

It is not difficult to detect symptoms of such a malady in typical Ritschlian formulations of theology. Indeed the whole "theology of the Christian consciousness," from Schleiermacher down, is infected with subjectivity. No doubt even Schleiermacher was theocentric *in his religion,* but he and his closest followers have not succeeded in being equally theocentric in their theology. Their theology is

really anthropocentric, not theocentric; it sets forth something about man, namely what the Christian religious man says, or tends to say, perchance rightly from his point of view, about his God. As a discipline it is essentially anthropological, historical, psychological. It is a branch of the psychology or of the history of religion, albeit possibly, if a critique of values be inserted, of the normative psychology of religion. At its best it undertakes to state, normatively as well as descriptively, what the Christian religious man may defensibly undertake to say concerning the object of his religious faith.

But such a position is scarcely satisfactory in the full sense of the word unless the doctrinal content is defensible as at least permissible intellectually, that is, philosophically, as well as the faith-attitude being defensible from a purely practical point of view. Where this is not the view taken, where on the contrary, as with Kaftan, the only apologetic admitted is a defense of the independence of the religious point of view and not a defense of the metaphysical permissibility of the doctrinal content of the theology, the tendency will be to gravitate toward logical dualism, or the "double-truth" theory, according to which what is true in theology may be false in philosophy, or vice versa. Herrmann, at least in his early writings, did not escape this absurdity, the only conceivable defence of which would be found in an irrationalism such as that of Tertullian and Kierkegaard, according to which dogmas supposedly taught on divine authority are to be believed not only in spite of but even because of their being absurd and impossible!

It may be fairly questioned whether the failure of Ritschlianism to vindicate or even to attempt to vindicate the metaphysical defensibility and reasonableness of the content of even the reduced liberal "essence" of Christianity may not have had a good deal to do with the rise of the Barthian theology, seeking to escape from the lurking subjectivity and merely anthropocentric character of the Ritschlian theology by reacting in an essentially irrationalistic way to the appeal to an ultimately traditional authority for

objectivity in theology. There is inherent in the religious consciousness, as Professor Wobbermin has insisted, an interest in the *truth* of the religious ideas in which the faith is expressed, an interest which leads ultimately in the direction of a metaphysical theology, and this truth interest is thwarted or neglected at the peril, at least for the thoughtful, not only of the loss of reasonableness in religion, but of the loss of the religious faith itself. What might have been expected to result, and what no doubt often did result, was a complete scepticism as to the truth, not only of any metaphysical system, but even of any theology or religious faith, whatever its practical value may be or may have been. In other words, metaphysics, theology, and religion itself tend to disappear, leaving as a residue only a genial Diltheyan *Weltanschauungslehre.*

III

The Function of Theology in Metaphysics

We have seen the relative justification of the reaction of modern metaphysics against the old dogmatic traditional theology, and the relative justification of the reaction of modern theology against the old speculative metaphysics. The motivation of both reactions was essentially sound, being directed toward the maintenance of the proper relative autonomy and freedom of both religion and philosophy and toward safeguarding the characteristic certitude of each and securing for each the greatest possible truth-content. But, as we have seen, the reaction, when made extreme and absolutely exclusive, has tended to defeat its own intention by undermining its own certainty and destroying its own knowledge-content. The reasonable conclusion to draw from this last discovery is that presumably there is a proper function of theology in metaphysics and of metaphysics in theology. To an investigation of the truth of this twofold suggestion we must therefore now turn.

If we are to inquire concerning the function of theology in metaphysics, we must be clear as to the type of theology

to be considered. Manifestly the old, dogmatic, authoritarian theology is in this connection already largely discredited. What we should consider here is theology at its best, a theology adequately critical and modern in its presuppositions and method, and at the same time as conservative of the vital doctrinal content of our evangelical Christian tradition as is reasonably possible.

Of prime importance in any theological undertaking is a clear understanding as to the concept of revelation. What is meant here is religious revelation, of course; but it may be that light will be thrown upon this question if it is viewed as a special case of the revelation of reality in general. We are not to look for a special logic for religious thinking; logic is logic whatever its content, and real or inductive logic, the logic of truth about reality must presuppose cognitive experience of reality, if it is to have positive, categorical content. Is it reasonably possible to begin the theological task with such a positive presupposition?

The position taken here, in distinction from the Kantian dualistic and consequently agnostic epistemology, is that independently existing reality is directly presented, revealed to some extent, within normal perceptual experience, so that its existence and something of what it is can be discovered, known. Defining knowledge as adequate and adequately critical (i.e. logical) certitude of the presence of reality which is really present and of the truth of judgments which are really true, and remembering that the verification of judgments depends upon the presentation in experience, or in other words upon the revelation or discovery, of the reality judged about, we may conclude that the possibility of knowledge in the form of true judgments about divine reality depends upon the possibility of divine revelation or what amounts to the same thing viewed from the subjective side, namely, religious discovery. Our perception of divine reality is similar to our perception of reality in general. In the complex of experienced elements we apprehend, by an act of perceptual intuition, certain

relations, processes, and other realities (e.g. physical things) which are not to be identified with the mere aggregate of sensory and other separately distinguishable elements of the experience. Similarly we may apprehend divine processes within the complex of religious experience, the criteria of the divine being subjectively the numinous and objectively the spiritually ideal, the absolute in the realm of values, the worshipful. On the basis of the religious perception of such divinely valuable causality as is involved, for instance, in spiritual regeneration, we can claim to have discovered the divine, revealed directly within the field of experience. This means the possibility and actuality of a limited amount of verified religious knowledge, a certain body of data for an essentially scientific empirical theology. The dependable experience of such divine processes on certain definable conditions of religious adjustment makes possible the formulation of empirical theological laws. If it be objected that such laws would be laws of normative psychology of religion rather than of empirical theology, the answer is that the same facts of dependable and desirable religious experience can be formulated either in terms of the ever-present subjective factor, as psychology, or in terms of the dependably objective factor, as theology. And there always is an objective factor, functioning divinely in such dependable, desirable religious experiences. We may even believe that, as in the case of experience and perception of the physical there is always the initiative of the physical stimulus, so in the experience and perception of the divine there is always a divine initiative, to which, however, again as in case of the physical, the experiencing, perceiving subject must necessarily respond with attentive conscious adjustment, if anything is to be revealed or discovered in and through the experience.

On the basis of the critically monistic and realistic religious epistemology and theological methodology thus of necessity most briefly suggested, but which may be found more fully elaborated in works entitled *The Problem of Religious Knowledge, Religious Realism,* and *Theology*

as an Empirical Science, I would claim that modern theology is in such a position as to be able to include a certain limited amount of strictly verified religious knowledge. But it cannot be maintained, of course, that all the important contents of the theology we need and are entitled to claim can be presented as thus verified in the essentially scientific sense. The great bulk of our legitimate theological belief is in the form of more or less assured intuition and faith, rather than fully verified knowledge. But if we are justified in regarding absolute spiritual worth as the objective criterion of the divine in the case of religious perception, we can use it as a guide to our thought about the divine in the realm of what is but faith as well. At this point then our procedure would be closely similar to that of the "theology of the Christian consciousness." In including those elements of a critical religious faith which cannot be reduced to fully verified religious knowledge, as Christian theologians we find normative factors in the spiritual values embodied in the person and work of the defensibly historical Jesus Christ and in the faith of the Christian communion at its best. In other words, we here find room for Christian dogmatics as a normative science, or as based upon a normative science of religious faith. This is practically coincident with what Professor Wobbermin has in mind when he speaks of going beyond the point of view of William James to that of Schleiermacher, so as to formulate for the religious fellowship to which one belongs the assured convictions of its faith. For the Christian who thinks consistently this will mean affirming the reality of a God great enough and good enough for our absolute worship and trust.

But this normative theology, in so far as its content goes beyond the limited nucleus of verified religious knowledge which it should be careful to include, remains, if no further step be taken, essentially dogmatic. What is suggested here is that there is a further step which can be taken, namely taking the theology thus far formulated and treating it as part of a metaphysical theory of reality. As such it

must be tested not only by the criterion of internal consistency but by that of agreement with verified fact and with whatever can be legitimately inferred from critically established value.

It is at this point that what Professor Wobbermin, along with some others, has done assumes historic importance. The insistence that *bona fide* theology be regarded as not only valuational but existential and essentially metaphysical and that it be treated as metaphysical, Dr. Wobbermin not only insisted upon in his *Theologie und Metaphysik;* he exemplified the procedure he advocated in *Der Christliche Gottesglaube* and in his subsequent writings. And with good reason, not only for the sake of theology, but in the interest of metaphysics as well.

Metaphysical thinking which is openminded and discerning enough to seek to make use of critical religious insight may temporarily find its problem complicated, but in the long run, I am convinced, it will be found not only to have enriched its content but even to have strengthened its certainty. That this assertion about doctrinal content is true will be immediately evident not only to all who appreciate the great spiritual value of religious faith and experience at their best, but also and especially to those who agree that in a critically inductive empirical theology there are empirical data and adequately verified laws as to the presence of the divine in human experience, forming items of real knowledge fit to be synthesized with generally recognized scientific knowledge in a comprehensive theory of reality. But that the statement about certainty is also true may be most reasonably maintained, especially if, as we shall see, metaphysical theory as a whole cannot claim to consist of verified scientific knowledge exclusively, but must be acknowledged to include and to be constituted in large part of statements of not fully verified belief and elements of speculative surmise. Reassurance tends to come to the metaphysician when he discovers that his theory of reality harmonizes with and is supported by the essential affirmations of religion at its spiritual and intellectual best.

IV

The Function of Metaphysics in Theology

Modern metaphysics has been found historically to be incompatible with the old externally authoritarian dogmatic theology, and modern theology has registered its emphatic protest against the corrupting and frequently destructive influence of the old, dogmatically speculative metaphysics. But we have found no reason to suspect that there is any necessary antagonism between theology and metaphysics when each is at its best. On the contrary, there seems ground for maintaining, as we have suggested, that theology, when rightly constructed, has an important function to perform in the service of metaphysics; and now we turn to the complementary question whether at its best metaphysics may not also be in a position to confer important benefits upon theology.

Before going further into this, however, it will be well to indicate in some detail just what is meant here by "metaphysics at its best." F. H. Bradley facetiously defined metaphysics as "the finding of bad reasons for what we believe upon instinct." There is just enough truth in this statement to make it desirable for the would-be metaphysician not to forget it entirely; but while metaphysics is largely concerned with finding reasons, it does not follow that the reasons it finds are always bad. Moreover, it not infrequently finds reasons for giving up what had been believed "upon instinct." And in very considerable part it is occupied with the synthesis of the general results of scientific investigation, which for the most part were not believed upon instinct at all.

Another famous partial definition of metaphysics is that offered by William James: "an unusually obstinate attempt to think clearly and consistently." This is true, as far as it goes, but it should be added that it is with regard to reality in general and reality as a whole that metaphysics is concerned to think clearly and consistently. And in

doing thus the metaphysician—while, if he be wise, he will not overlook but will deal critically yet not unsympathetically with the great "instinctive" human beliefs—will also make it a matter of primary concern to include and synthesize the well-established general results of the scientific investigation of reality.

Throughout a long period the favored method of metaphysics was that of rationalistic speculation, of attempted deductive demonstration. It was not sufficiently recognized that what can thus be established on apriori grounds is very strictly limited. For categorical proof about reality the premises must be empirically grounded, and new similarly grounded propositions must be introduced from time to time if the argument is to make headway. Hegel and some of his followers have claimed to discover progressively the nature of reality by means of "the high and dry apriori road"; but it is generally recognized that the crucial forward steps in the dialectic are taken under the guidance of categories originally derived from experience or devised for dealing with experience.

The great fault of the deductive or dialectical method of rationalistic speculation in metaphysics is that it fails to produce the demonstrative certainty which it claims for its successive steps, some of which may be new and others of which may be apriori, but most of which are probably not both. In view of the limitations and defects of the speculative method some theorists have suggested as the proper method for metaphysics a mere synthesis of all the well-established general results of the sciences in one comprehensive scientific theory of reality. Theoretically there is much to be said for such an empirical method in metaphysics; but as a matter of fact most theories of reality thus constructed are very unsatisfactory in their doctrinal content. They tend to be one-sidedly materialistic for the simple reason that the sciences of material reality have made much more progress, up to the present, than have the sciences of human personality, apart altogether from the question of the possibility of a science of divine processes and divine

reality, or God. But now that this has been mentioned, let it be pointed out that if a synthesis of scientific knowledge be what modern metaphysics is to be, there seems no reason why the empirically scientific elements in an empirical theology (based upon a realistic religious epistemology) should not be included in the synthesis, along with the sciences of matter, life and mind (based upon a realistic general epistemology).

But there are other elements which claim a place in metaphysics besides generalized knowledge of empirical fact. In addition to verified empirical knowledge, "secular" and religious, our legitimate thinking about reality makes room for beliefs, theoretically permissible and rationally necessary to the conservation of values critically appreciated as absolutely valid; and even intuitional surmises may well receive at least temporary status as possibly fruitful of new and true insights. An illustration of metaphysical beliefs necessarily involved in absolute values may be found in the postulate of an essentially creative self-determining freedom, as logically involved in the validity of the values bound up with the consciousness of moral obligation and responsibility.

This then is the composite character of modern metaphysics "at its best." It is partly knowledge, partly reasonable and spiritually necessary belief, and partly theoretically permissible intuitive surmise, the whole being integrated into a self-consistent system, harmonious with ascertained fact and as far as possible with what seems to be absolutely valid value. What then can the introduction of metaphysics of this sort into theology accomplish for the latter?

In the first place it may introduce important scientific knowledge into theological theory. This may be expected to affect favorably the theological doctrines which have to do with the relation of God to the world and to human personality. Such doctrines as those concerning providence, prayer, and religious experience generally may be expected to be brought more definitely under the control of rationality and empirical fact.

But not only in relation to doctrinal content, but with regard to certainty as well, the metaphysical development of theology may be expected in the long run to make a valuable contribution. The first raising of metaphysical questions in connection with theological doctrines may be the occasion of suggesting doubt, but if and in so far as in the end the theological belief is found to stand the test of metaphysical criticism, the effect will be reassurance, the making of the original religious assurance doubly sure.

It would seem, then, that when we have begun to use the best modern methods in both theology and metaphysics, instead of conflicting with each other, they will be found to fit into each other as hand and glove, or mortise and tenon, or the dove-tailed timbers prepared for building. In so far as theology consists of verified religious information it must harmonize with other scientific information utilized by empirical metaphysics. In so far as theology is reasonable and spiritually necessary faith, it becomes a proper part of metaphysics as reasonable belief about reality. And in so far as there may be in theology fruitful intuitions and speculations which are at the same time theoretically permissible, these too may be given favorable though not uncritical consideration by the votary of metaphysics. Theology and metaphysics have often been at enmity with each other, but this is not their ideal mutual relationship. They are meant for mutual assistance, and each will remain unstable and incomplete until it finds its completion in the other.

SELECTED BIBLIOGRAPHY

Barth, Karl: Credo, 1936
Barth, Karl: God in Action, 1936
Barth, Karl: The Word of God and the Word of Man, 1928
Hartshorne, Charles: Man's Vision of God and the Logic of Theism, 1941
Kaftan, J. W. M.: The Truth of the Christian Religion, 1894

Kepler, T. S.: (editor), Contemporary Religious Thought, 1941
Kierkegaard, Soeren: Concluding Unscientific Postscript, 1941
Laird, John: Theism and Cosmology, 1942
Macintosh, D. C.: The Problem of Religious Knowledge, 1940
Macintosh, D. C.: Religious Realism, 1931
Macintosh, D. C.: Theology as an Empirical Science, 1919
Ritschl, A. B.: Die Christliche Lehre, Von der Rechtfertigung und Versoehnung, 3 Vols., 1870-1874
Schleiermacher, F. E. D.: Der Christliche Glaube, 2 Vols., 1821-1822
Troeltsch, E.: Christian Thought, 1923
Wobbermin: Christian Belief in God, 1918
Wobbermin: The Nature of Religion, 1933
Journals: *Hibbert Journal, Harvard Theological Review, Journal of Liberal Religion, Review of Religion*

PART II

PHILOSOPHY OF THE TWENTIETH CENTURY

By Bertrand Russell

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By Bertrand Russell

Ever since the end of the Middle Ages, philosophy has steadily declined in social and political importance. William of Ockham, one of the greatest of mediaeval philosophers, was hired by the Kaiser to write pamphlets against the Pope; in those days many burning political questions were bound up with disputes in the schools. The advances of philosophy in the seventeenth century were more or less connected with political opposition to the Catholic Church; Malebranche, it is true, was a priest, but priests are not allowed to accept his philosophy. The disciples of Locke in eighteenth century France, and the Benthamites in nineteenth century England, were for the most part extreme radicals in politics, and created the modern *bourgeois* liberal outlook. But the correlation between philosophical and political opinions grows less definite as we advance. Hume was a Tory in politics, though an extreme radical in philosophy. Only in Russia, which remained mediaeval till the Revolution, has any clear connexion of philosophy and politics survived. Bolsheviks are materialists, while Whites are idealists. In Tibet the connexion is even closer: the second official in the state is called the "metaphysician in chief." Elsewhere philosophy is no longer held in such high esteem.

The reason for this is simple: bad philosophy has practical consequences, while good philosophy has none—except that traditional orthodoxies, and the new creeds which are endeavouring to supplant them, are false, or at any rate without any rational basis. The practical man may be pardoned if he comes to the conclusion that truth is unattainable except when it is unimportant. Since many phi-

losophers are practical men in disguise, they have drawn the inference that philosophy should not seek truth, but should concoct plausible reasons for useful error. Much modern philosophy has been inspired by this great thought.

On the other hand, science, which also professes to pursue truth, has proved itself extraordinarily useful; it has enabled us to kill people in far larger numbers than was formerly possible, as well as to keep them alive if we should so desire. Consequently some philosophers have attached themselves to science, and have endeavoured to win some of its prestige for their own studies.

These two tendencies—to make philosophy useful by the propagation of error, or respectable by incorporation in science—have determined the main clevage in twentieth century philosophy. Adherents of the former tendency have discovered nothing true; adherents of the latter, nothing useful. Perhaps the pursuit of truth, like art, may be justified independently of utility; but no eminent person would subscribe to such a doctrine.

Academic philosophy, throughout the twentieth century, has been mainly divided into three groups. The first consists of the adherents of the classical German philosophy, usually Kant, but sometimes Hegel. The second consists of the pragmatists and Bergson. The third consists of those who attach themselves to the sciences, believing that philosophy has no special brand of truth and no peculiar method of arriving at it; these men, for convenience, may be called realists, though in fact there are many among them to whom this name is not strictly applicable. The distinction between the different schools is not sharp, and individuals belong partly to the one, partly to another. William James may be regarded as almost the founder of both realism and pragmatism. Dr. Whitehead's recent books employ the methods of realists in defense of a more or less Bergsonian metaphysic. Many philosophers, not without a considerable show of reason, regard Einstein's doctrines as affording a scientific basis for Kant's belief in the subjectivity of time and space. The distinctions in fact are thus less clear than

the distinctions in logic. Nevertheless the distinctions in logic are useful as affording a framework for the classification of opinions.

German idealism, throughout the twentieth century, has been on the defensive. The new books that have been recognized as important by others than professors have represented newer schools, and a person who judged by book reviews might imagine that these schools had now the upper hand. But in fact most teachers of philosophy, in Germany, France, and Great Britain, though perhaps not America, still adhere to the classical tradition. It is certainly much easier for a young man to get a post if he belongs to this party than if he does not. Its opponents made an attempt to show that it shared the wickedness of everything German, and was in some way responsible for the invasion of Belgium.[1] But its adherents were too eminent and respectable for this line of attack to be successful. Two of them, Emile Boutroux and Bernard Bosanquet, were until their deaths the official spokesmen of French and British philosophy respectively at international congresses. Religion and conservatism look mainly to this school for defense against heresy and revolution. They have the strength and weakness of those who stand for the status quo: the strength that comes of tradition, and the weakness that comes of lack of fresh thought.

In the English-speaking world, this position was only acquired just before the beginning of the twentieth century. I began the serious study of philosophy in the year 1893, the year which saw the publication of Mr. Bradley's Appearance and Reality. Mr. Bradley was one of those who had had to fight to win proper recognition of German philosophy in England, and his attitude was very far from that of one who defends a traditional orthodoxy. To me, as to most of my contemporaries, his Logic, and his Appearance and Reality made a profound appeal. I still regard these books with the greatest respect, though I have long ceased to agree with their doctrines.

The outlook of Hegelianism is characterized by the

belief that logic alone can tell us a great deal about the real world. Mr. Bradley shares this belief; he contends that the world as it seems to be is self-contradictory, and therefore illusory, while the real world, since it must be logically self-consistent, is bound to have certain characteristics of a surprising kind. It cannot be in time or space, it cannot contain a variety of interrelated things, it cannot contain separate selves, or even that degree of division between subject and object which is involved in knowing. It consists therefore of a single Absolute, timelessly engaged in something more analogous to feeling than to thinking or willing. Our sublunary world is all illusion, and what seems to happen in it does not really matter. This doctrine ought to destroy morality, but morality is temperamental and defies logic. Hegelians in fact urge as their basic moral principle that we ought to behave as if the Hegelian philosophy were true; but they do not notice that if it were true it would not matter how we behave.

The attack upon this philosophy came from two sides. On the one side were the logicians, who pointed to fallacies in Hegel, and contended that relations and plurality, space and time, are in fact not self-contradictory. On the other side were those who disliked the regimentation and orderliness involved in a world created by logic; of these the chief were William James and Bergson. The two lines of attack were not logically inconsistent, except in some of their accidental manifestations, but they were temperamentally different, and were inspired by different kinds of knowledge. Moreover their appeal was quite different: the appeal of the one was academic, that of the other was human. The academic appeal argued that Hegelianism was false; the human appeal argued that it was disagreeable. Naturally the latter had more popular success.

In the English-speaking world, the greatest influence in the overthrow of German idealism was William James—not as he appears in his Psychology, but as he came to be known through the series of small books which were published in the last years of his life and after his death.

In an article published in Mind so long ago as 1884, reprinted in the posthumous volume Essays in Radical Empiricism, he sets out his temperamental bias with extraordinary charm:

"Since we are in the main not sceptics, we might go on and frankly confess to each other the motives for our several faiths. I frankly confess mine—I cannot but think that at bottom they are of an aesthetic and not of a logical sort. The 'through-and-through' universe seems to suffocate me with its infallible impeccable all-pervasiveness. Its necessity, with no possibilities; its relations, with no subjects, make me feel as if I had entered into a contract with no reserved rights, or rather as if I had to live in a large seaside boarding-house with no private bedroom in which I might take refuge from the society of the place. I am distinctly aware, moreover, that the old quarrel of sinner and pharisee has something to do with the matter. Certainly, to my personal knowledge, all Hegelians are not prigs, but I somehow feel as if all prigs ought to end, if developed, by becoming Hegelians. There is a story of two clergymen asked by mistake to conduct the same funeral. One came first and had got no farther than 'I am the Resurrection and the Life' when the other entered. '*I* am the Resurrection and the Life,' cried the latter. The 'through-and-through' philosophy, as it actually exists, reminds many of us of that clergyman. It seems too buttoned-up and white-chokered and clean-shaven a thing to speak for the vast slow-breathing unconscious Kosmos with its dread abysses and its unknown tides."

I think it may be wagered that no one except William James has ever lived who would have thought of comparing Hegelianism to a seaside boarding-house. In 1884, this article had no effect, because Hegelianism was still on the up grade, and philosophers had not learnt to admit that their temperaments had anything to do with their opinions. In 1912 (the date of the reprint) the atmosphere had changed through many causes—among others the influence of William James upon his pupils. I cannot claim

to have known him more than superficially except from his writings, but it seems to me that one may distinguish three strands in his nature, all of which contributed to form his outlook. Last in time, but first in its philosophical manifestations, was the influence of his training in physiology and medicine, which gave him a scientific and slightly materialistic bias as compared to purely literary philosophers who derived their inspiration from Plato, Aristotle, and Hegel. This strand dominates his Psychology except in a few crucial passages, such as his discussion of free will. The second element in his philosophical make-up was a mystical and religious bias inherited from his father and shared with his brother. This inspired The Will to Believe and his interest in psychical research. Thirdly there was an attempt, made with all the earnestness of a New England conscience, to exterminate the natural fastidiousness which he also shared with his brother, and replace it by democratic sentiment *à la* Walt Whitman. The fastidiousness is visible in the above quotation, where he expresses horror of a boarding-house with no private bedroom (which Whitman would have loved). The wish to be democratic is visible in the claim that he is a sinner, not a pharisee. Certainly he was not a pharisee, but he probably committed as few sins as any man who ever lived. On this point he fell short of his usual modesty.

The best people usually owe their excellence to a combination of qualities which might have been supposed incompatible, and so it was in the case of James, whose importance was greater than was thought by most of his contemporaries. He advocated pragmatism as a method of presenting religious hopes as scientific hypotheses; and he adopted the revolutionary view that there is no such thing as "consciousness," as a way overcoming the opposition between mind and matter without giving predominance to either. In these two parts of his philosophy he had different allies: Schiller and Bergson as regards the former, the new realists as regards the latter. Only Dewey, among eminent men, was with him on both issues. The two parts

have different histories and affiliations, and must be considered separately.

James' The Will to Believe dates from 1897; his Pragmatism from 1907. Schiller's Humanism and Dewey's Studies in Logical Theory both date from 1903. Throughout the early years of the twentieth century the philosophical world was excited about pragmatism; then Bergson outbid it in appealing to the same tastes. The three founders of pragmatism differ greatly *inter se;* we may distinguish James, Schiller, and Dewey as respectively its religious, literary, and scientific protagonists—for, though James was many-sided, it was chiefly his religious side which found an outlet in pragmatism. But let us ignore these differences and try to present the doctrine as a unity.

The basis of the doctrine is a certain kind of scepticism. Traditional philosophy professed to be able to prove the fundamental doctrines of religion; its opponents professed to be able to disprove them, or at least, like Spencer, to prove that they could not be proved. It seemed, however, that, if they could not be proved, they also could not be disproved. And this appeared to be the case with many doctrines which such men as Spencer regarded as unshakable: causality, the reign of law, the general trustworthiness of memory, the validity of induction, and so on. All these, from a purely rational point of view, should be embraced in the agnostic's suspense of judgment, since, so far as we can see, they are radically incapable of proof or disproof. James argued that, as practical men, we cannot remain in doubt on these issues if we are to survive. We must assume, for instance, that the sort of food which has nourished us in the past will not poison us in the future. Sometimes we are mistaken, and die. The test of a belief is not conformity with "fact," since we can never reach the facts concerned; the test is its success in promoting life and the achievement of our desires. From this point of view, as James tried to show in The Varieties of Religious Experience, religious beliefs often pass the test, and are therefore to be called "true." It is in no other sense—so he contends—that the most

accredited theories of science can be called "true": they work in practice, and that is all we know about it.

As applied to the general hypotheses of science and religion, there is a great deal to be said for this view. Given a careful definition of what is meant by "working," and a proviso that the cases concerned are those where we don't really know the truth, there is no need to quarrel with the doctrine in this region. But let us take humbler examples, where real truth is not so hard to obtain. Suppose you see a flash of lightning, you may expect to hear thunder, or you may judge that the flash was too distant for the thunder to be audible, or you may not think about the matter at all. This last is usually the most sensible course, but let us suppose that you adopt one of the other two. When you hear the thunder, your belief is verified or refuted, not by any advantage or disadvantage it has brought you, but by a "fact," the sensation of hearing thunder. Pragmatists attend mainly to beliefs which are incapable of being verified by any facts that come within our experience. Most of our everyday beliefs about mundane affairs—e.g. that so-and-so's address is such-and-such—are capable of verification within our experience, and in these cases the pragmatist's criterion is unnecessary. In many cases, like the above instance of the thunder, it is quite inapplicable, since the true belief has no practical advantage over the false one, and neither is as advantageous as thinking about something else. It is a common defect of philosophers to like "grand" examples rather than such as come from ordinary daily life.

Although pragmatism may not contain ultimate philosophical truth, it has certain important merits. First, it realizes that the truth that *we* can attain to is merely human truth, fallible and changeable like everything human. What lies outside the cycle of human occurrences is not truth, but fact (of certain kinds). Truth is a property of beliefs, and beliefs are psychical events. Moreover their relation to facts does not have the schematic simplicity which logic assumes; to have pointed this out is a second merit in pragmatism. Be-

liefs are vague and complex, pointing not to one precise fact, but to several vague regions of fact. Beliefs, therefore, unlike the schematic propositions of logic, are not sharply opposed as true or false, but are a blur of truth and falsehood; they are of varying shades of grey, never white or black. People who speak with reverence of the "Truth" would do better to speak about Fact, and to realize that the reverend qualities to which they pay homage are not to be found in human beliefs. There are practical as well as theoretical advantages in this, since people persecute each other because they believe that they know the "truth." Speaking psychoanalytically, it may be laid down that any "great ideal" which people mention with awe is really an excuse for inflicting pain on their enemies. Good wine needs no bush, and good morals need no bated breath.

In practice, however, pragmatism has a more sinister side. The truth, it says, is what pays in the way of beliefs. Now a belief may be made to pay through the operation of the criminal law. In the seventeenth century, Catholicism paid in Catholic countries and Protestantism in Protestant countries. Energetic people can manufacture "truth" by getting hold of the government and persecuting opinions other than their own. These consequences flow from an exaggeration into which pragmatism has fallen. Granted that, as pragmatists point out, truth is a matter of degree, and is a property of purely human occurrences, namely beliefs, it still does not follow that the degree of truth possessed by a belief depends upon purely human conditions. In increasing the degree of truth in our beliefs, we are approximating to an ideal, and the ideal is determined by Fact, which is only within our control to a certain very limited extent, as regards some of the minor circumstances on or near the surface of a certain planet. The theory of the pragmatist is derived from the practice of the advertiser, who, by saying repeatedly that his pills are worth a guinea a box, makes people willing to give sixpence a box for them, and thus makes his assertion more nearly true than if it had been made with less confidence. Such instances of man-made truth

are interesting, but their scope is very limited. By exaggerating their scope, people become involved in an orgy of propaganda, which is ultimately brought to an abrupt end by hard facts in the shape of war, pestilence, and famine. The recent history of Europe is an object-lesson of the falsehood of pragmatism in this form.

It is a curious thing that Bergson should have been hailed as an ally by the pragmatists, since, on the face of it, his philosophy is the exact antithesis to theirs. While pragmatists teach that utility is the test of truth, Bergson teaches, on the contrary, that our intellect, having been fashioned by practical needs, ignores all the aspects of the world which it does not pay to notice, and is in fact an obstacle to the apprehension of truth. We have, he thinks, a faculty called "intuition," which we can use if we take the trouble, and which will enable us to know, in theory at least, everything past and present, though apparently not the future. But since it would be inconvenient to be troubled with so much knowledge, we have developed a brain, the function of which is to forget. But for the brain, we should remember everything; owing to its sieve-like operations, we usually remember only what is useful, and that all wrong. Utility, for Bergson, is the source of error, while truth is arrived at by a mystic contemplation from which all thought of practical advantage is absent. Nevertheless Bergson, like the pragmatists, prefers action to reason, Othello to Hamlet; he thinks it better to kill Desdemona by intuition than to let the King live because of intellect. It is this that makes pragmatists regard him as an ally.

Bergson's Données Immédiates de la Conscience was published in 1889, and his Matière et Mémoire in 1896. But his great reputation began with L'Evolution Créatrice, published in 1907—not that this book was better than the others, but that it contained less argument and more rhetoric, so that it had more persuasive effect. This book contains, from beginning to end, no argument, and therefore no bad argument; it contains merely a poetical picture appealing to the fancy. There is nothing in it to help us to a conclusion

as to whether the philosophy which it advocates is true or false; this question, which might be thought not unimportant, Bergson has left to others. But according to his own theories he is right in this, since truth is to be attained by intuition, not by intellect, and is therefore not a matter of argument.

A great part of Bergson's philosophy is merely traditional mysticism expressed in slightly novel language. The doctrine of interpenetration, according to which different things are not really separate, but are merely so conceived by the analytic intellect, is to be found in every mystic, Eastern or Western, from Parmenides to Mr. Bradley. Bergson has given an air of novelty to this doctrine by means of two devices. First, he connects "intuition" with the instincts of animals; he suggests that intuition is what enables the solitary wasp Ammophila to sting the larva in which it lays its eggs exactly so as to paralyse it without killing it. (The instance is unfortunate, since Dr. and Mrs. Peckham have shown that this poor wasp is no more unerring than a mere man of science with his blundering intellect.) This gives a flavor of modern science to his doctrines, and enables him to adduce zoological instances which make the unwary think that his views are based upon the latest results of biological research. Secondly, he gives the name "space" to the separateness of things as they appear to the analytic intellect, and the name "time" or "duration" to their interpenetration as revealed to intuition. This enables him to say many new things about "space" and "time," which sound very profound and original when they are supposed to be about what is ordinarily meant by those words. "Matter," being that which is in "space," is of course a fiction created by the intellect, and is seen to be such as soon as we place ourselves at the point of view of intuition.

In this part of his philosophy, apart from phraseology, Bergson has added nothing to Plotinus. The invention of the phraseology certainly shows great ability, but it is that of the company promoter rather than the philosopher. It is not part of his philosophy, however, which has won him

his wide popularity. He owes that to his doctrine of the *élan vital* and real becoming. His great and remarkable innovation is to have combined mysticism with a belief in the reality of time and progress. It is worth while to see how he achieved this feat.

Traditional mysticism has been contemplative, convinced of the unreality of time, and essentially a lazy man's philosophy. The psychological prelude to the mystic illumination is the "dark night of the soul," which arises when a man is hopelessly balked in his practical activities, or for some reason suddenly loses interest in them. Activity being thus ruled out, he takes to contemplation. It is a law of our being that, whenever it is in any way possible, we *adopt such beliefs* as will *preserve our self-respect.* Psychoanalytic literature is full of grotesque examples of this law. Accordingly the man who has been driven to contemplation presently discovers that contemplation is *the true end of life,* and that the real world is hidden from those who are immersed in *mundane activities.* From this basis the remaining doctrines of traditional mysticism can be deduced. Lao-Tze, perhaps the first of the great mystics, wrote his book (so tradition avers) at a custom-house while he was waiting to have his baggage examined,[2] and, as might be expected, it is full of the doctrine that *action is futile.*

But Bergson sought to adapt mysticism to those who believe in *activity and "life,"* who believe in the *reality of progress,* and are in no way disillusioned about our existence here below. The mystic is usually a temperamentally active man forced into inaction; the vitalist is a temperamentally inactive man with a romantic admiration *for action.* Before 1914, the world was full of such people, "Heartbreak House" people. Their temperamental basis is boredom and scepticism, leading to love of excitement and longing for an irrational faith—a faith which they found ultimately in the belief that it was their duty to make other people kill each other. But in 1907 they had not this outlet, and Bergson provided a good substitute.

Bergson's view is something expressed in language which

might mislead, because things which he regards as illusory are occasionally mentioned in a way which suggests that they are real. But when we avoid these possibilities of misunderstanding, I think his doctrine of time is as follows. Time is not a series of separate moments or events, but a continuous growth, in which the future cannot be foreseen because it is genuinely *new* and therefore unimaginable. Everything that really happens persists, like the successive rings in the growth of a tree. (This is not his illustration.) Thus the world is perpetually growing fuller and richer. Everything that has happened persists in the pure memory of intuition, as opposed to the pseudo-memory of the brain. This regular type is "duration," while the impulse to new creation is the "*élan vital*." To recover the pure memory of intuition is a matter of self-discipline. We are not told how to do it, but one suspects something not unlike the practices of Yogis.

If one might venture to apply to Bergson's philosophy so vulgar a thing as logic, certain difficulties would appear in this philosophy of change. Bergson is never tired of pouring scorn upon the mathematician for regarding time as a series, whose parts are mutually external. But if there is indeed genuine novelty in the world, as he insists (and without this feature his philosophy loses its attractive qualities) and if whatever really comes into the world persists (which is the simple essence of his doctrine of duration) then the sum-total of existence at any earlier time is part of the sum-total at any later time. Total states of the world at various times form a series in virtue of this relation of whole and part, and this series has all the properties that the mathematician wants and that Bergson professes to have banished. If the new elements which are added in later states of the world are not external to the old elements, there is no genuine novelty, creative evolution has created nothing, and we are back in the system of Plotinus. Of course Bergson's answer to this dilemma is that what happens is "growth," in which everything changes and yet remains the same. This conception, however,

is a mystery, which the profane cannot hope to fathom. At bottom, Bergson's appeal is to mystical faith, not to reason; but into the regions where faith is above logic we cannot follow him.

Meanwhile, from many directions, a philosophy grew up which is often described as "realism," but is really characterized by analysis as a method and pluralism as a metaphysic. It is not necessarily realistic since it is, in some forms, compatible with Berkeleian idealism. It is not compatible with Kantian or Hegelian idealism, because it rejects the logic upon which those systems are based. It tends more and more to the adoption and development of James' view, that the fundamental stuff of the world is neither mental nor material, but something simpler and more fundamental, out of which both mind and matter are constructed.

In the 'nineties, James was almost the only eminent figure, except among the very old, that stood out against German idealism. Schiller and Dewey had not yet begun to make themselves felt, and even James was regarded as a psychologist who need not be taken very seriously in philosophy. But with the year 1900 a revolt against German idealism began, not from a pragmatist point of view, but from a severely technical standpoint. In Germany, apart from the admirable works of Frege (which began in 1879, but were not read until recent years), Husserl's Logische Untersuchungen, a monumental work published in 1900, soon began to exert a great effect. Meinong's Ueber Annahmen (1902) and Gegenstandstheorie und Psychologie (1904) were influential in the same direction. In England, G. E. Moore and I began to advocate similar views. His article on The Nature of Judgment was published in 1899; his Principia Ethica in 1903. My Philosophy of Leibniz appeared in 1900, and Principles of Mathematics in 1903. In France, the same kind of philosophy was vigorously championed by Couturat. In America, William James' radical empiricism (without his pragmatism) was blended with the new logic to produce a radically new philosophy, that of the New Realists, somewhat later in date, but more revolu-

tionary, than the European works mentioned above, although Mach's Analyse der Empfindungen had anticipated part of its teaching.

The new philosophy which was thus inaugurated has not yet reached a final form, and is still in some respects immature. Moreover there is a very considerable measure of disagreement among its various advocates. It is in parts somewhat abstruse. For these reasons, it is impossible to do more than set forth some of its salient features.

The first characteristic of the new philosophy is that it abandons the claim to a special philosophic method or a peculiar brand of knowledge to be obtained by its means. It regards philosophy as essentially one with science, differing from the special sciences merely by the generality of its problems, and by the fact that it is concerned with the formation of hypotheses where empirical evidence is still lacking. It conceives that all knowledge is scientific knowledge, to be ascertained and proved by the methods of science. It does not aim, as previous philosophy has usually done, at statements about the universe as a whole, nor at the construction of a comprehensive system. It believes, on the basis of its logic, that there is no reason to deny the apparently piecemeal and higgledy-piggledy nature of the world. It does not regard the world as "organic," in the sense that, from any part adequately understood, the whole could be inferred, as the skeleton of an extinct monster can be inferred from a single bone. In particular, it does not attempt, as German idealism did, to deduce the nature of the world as a whole from the nature of knowledge. It regards knowledge as a natural fact like another, with no mystic significance and no cosmic importance.

The new philosophy had originally three main sources: *theory* of knowledge, *logic,* and the *principles of mathematics.* Ever since Kant, knowledge had been conceived as an interaction, in which the thing known was modified by our knowledge of it, and therefore always had certain characteristics due to our knowledge. It was also held (though not by Kant) to be logically impossible for a thing

to exist *without* being known. Therefore the properties acquired through being known were properties which everything must have. In this way, it was contended, we can discover a great deal about the real world by merely studying the conditions of knowledge. The new philosophy maintained, on the contrary, that knowledge, as a rule, makes no difference to what is known, and that there is not the slightest reason why there should not be things which are not known to any mind. Consequently theory of knowledge ceases to be a magic key to open the door to the mysteries of the universe, and we are thrown back upon the plodding investigations of science.

In logic, similarly, *atomism* replaced the "*organic*" view. It had been maintained that everything is affected in its intrinsic nature by its relations to everything else, so that a thorough knowledge of one thing would involve a thorough knowledge of the whole universe. The new logic maintained that the intrinsic character of a thing does not logically enable us to deduce its relations to other things. An example will make the point clear. Leibniz maintains somewhere (and in this he agrees with modern idealists) that if a man is in Europe and his wife dies in India, there is an intrinsic change in the man at the moment of his wife's death. Common sense would say that there is no intrinsic change in the man until he hears of his bereavement. This view is adopted by the new philosophy; its consequences are more far-reaching than they might appear to be at first sight.

The principles of mathematics have always had an important relation to philosophy. Mathematics apparently contains *a priori* knowledge of a high degree of certainty, and most philosophy aspires to *a priori* knowledge. Ever since Zeno the Eleatic, philosophers of an idealistic caste have sought to throw discredit on mathematics by manufacturing contradictions which were designed to show that mathematicians had not arrived at real metaphysical truth, and that the philosophers were able to supply a better brand. There is a great deal of this in Kant, and still more in Hegel.

During the nineteenth century, the mathematicians destroyed this part of Kant's philosophy. Lobatchevsky, by inventing non-Euclidean geometry, undermined the mathematical argument of Kant's transcendental aesthetic. Weierstrass proved that continuity does not involve infinitesimals; Georg Cantor invented a theory of continuity and a theory of infinity which did away with all the old paradoxes upon which philosophers had battened. Frege showed that arithmetic follows from logic, which Kant had denied. All these results were obtained by ordinary mathematical methods, and were as indubitable as the multiplication table. Philosophers met the situation by not reading the authors concerned. Only the new philosophy assimilated the new results, and thereby won an easy argumentative victory over the partisans of continued ignorance.

The new philosophy is not merely critical. It is constructive, but as science is constructive, bit by bit and tentatively. It has a special technical method of construction, namely mathematical logic, a new branch of mathematics, much more akin to philosophy than any of the traditional branches. Mathematical logic makes it possible, as it never was before, to see what is the outcome, for philosophy, of a given body of scientific doctrine, what entities must be assumed, and what relations between them. The philosophy of mathematics and physics has made immense advances by the help of this method; part of the outcome for physics has been set forth by Dr. Whitehead in three recent works.[3] There is reason to hope that the method will prove equally fruitful in other fields, but it is too technical to be set forth here.

A good deal of modern pluralist philosophy has been inspired by the logical analysis of propositions. At first this method was applied with too much respect for grammar; Meinong, for example, maintained that, since we can say truly "the round square does not exist," there must be such an object as the round square, although it must be a non-existent object. The present writer was at first not exempt from this kind of reasoning, but discovered in 1905

how to escape from it by means of the *theory of "descriptions,"* from which it appears that the round square is not mentioned when we say, "The round square does not exist." It may seem absurd to spend time on such a ridiculous topic as the round square, but such topics often afford the best tests of logical theories. Most logical theories are condemned by the fact that they lead to *absurdities;* therefore the logician must be aware of *absurdities* and on the lookout for them. Many laboratory experiments would seem trivial to any one who did not know their relevance, and absurdities are the experiments of the logician.

From preoccupation with the logical analysis of propositions, the new philosophy had at first a strong tincture of Platonic and mediaeval realism; it regarded *abstracts* as having the same kind of existence that *concretes* have. From this view, as its logic perfected itself, it became gradually more free. What remains is not such as to shock common sense.

Although *pure mathematics* was more concerned than any other science in the first beginnings of the new philosophy, the most important influence in the present day is physics. This has come about chiefly through the work of Einstein, which has fundamentally altered our notions of space, time, and matter. This is not the place for an explanation of the theory of relativity, but a few words on some of its philosophical consequences are unavoidable.

Two specially important items in the theory of relativity, from the philosophical point of view, are: (1) that there is not a single all-embracing time in which all the events in the universe have their place; (2) that the conventional or subjective part in our observation of physical phenomena, though much greater than was formerly supposed, can be eliminated by means of a certain mathematical method known as the tensor calculus. I shall say nothing on this latter topic, as it is intolerably technical.

As regards time, it must be understood, to begin with, that we are not dealing with a philosophical speculation, but with a theory necessitated by experimental results and

embodied in mathematical formulae. There is the same sort of difference between the two as there is between the theories of Montesquieu and the American Constitution. What emerges is this: that while the events that happen to a given piece of matter have a definite time-order from the point of view of an observer who shares its motion, events which happen to pieces of matter in *different places* have not always a definite time-order. To be precise: If a light-signal is sent from the earth to the sun, and reflected back to the earth, it will return to the earth about sixteen minutes after it was sent out. The events which happen on the earth during those sixteen minutes are neither earlier nor later than the arrival of the light-signal at the sun. If we imagine observers moving in all possible ways with respect to the earth and the sun, observing the events on the earth during those sixteen minutes and also the arrival of the light-signal at the sun; if we assume that all these observers allow for the velocity of light and employ perfectly accurate chronometers; then some of these observers will judge any given event on earth during those sixteen minutes to be earlier than the arrival of the light-signal at the sun, some will judge it to be simultaneous, and some will judge it to be later. All are equally right or equally wrong. From the impersonal standpoint of physics, the events on earth during those sixteen minutes are neither earlier nor later than the arrival of the light-signal at the sun, nor yet simultaneous with it. We can only say that an event A in one piece of matter is definitely earlier than an event B in another if light can travel from A to B, starting when the earlier event happens (according to A's time) and arriving before the later event happens (according to B's time). Otherwise the apparent time-order of the two events will vary according to the observer, and will therefore not represent any physical fact.

If velocities comparable with that of light were common in our experience, it is probable that the physical world would have seemed too complicated to be tackled by scientific methods, so that we should have been content with medicine-

men down to the present day. But if physics *had* been discovered, it would have had to be the physics of Einstein, because Newtonian physics would have been obviously inapplicable. Radio-active substances send out particles which move very nearly with the velocity of light, and the behaviour of these particles would be unintelligible without the new physics of relativity. There is no doubt that the old physics is faulty, and from a philosophical point of view it is no excuse to say that the fault is "only a little one." We have to make up our minds to the fact that, within certain limits, there is no definite time-order between events which happen in different places. This is the fact which has led to the introduction of the single manifold called "space-time" instead of the two separate manifolds called "space" and "time." The time that we have been regarding as cosmic is really "local time," a time bound up with the motion of the earth, with as little claim to universality as that of a ship which does not alter its clocks in crossing the Atlantic.

When we consider the part that time plays in all our common notions, it becomes evident that our outlook would be profoundly changed if we really imaginatively realized what the physicists have done. Take the notion of "progress": if the time-order is arbitrary, there will be progress or retrogression according to the convention adopted in measuring time. The notion of distance in space is of course also affected: two observers who employ every possible device for ensuring accuracy will arive at different estimates of the distance between two places, if the observers are in rapid relative motion. It is obvious that the very idea of distance has become vague, because distance must be between material things, not points of empty space (which are fictitious); and it must be the distance at a given time, because the distance between any two bodies is continually changing; and a given time is a subjective notion, dependent upon the way the observer is travelling. We can no longer speak of a body at a given time, but must speak simply of an *event.* Between two events there is, quite

independently of any observer, a certain relation called the "interval" or "separation" between them. This interval will be differently analysed by different observers into a spatial and a temporal component, but this analysis has no objective validity. The interval is an objective physical fact, but its separation into spatial and temporal elements is not.

It is obvious that our old comfortable notion of "solid matter" cannot survive. A piece of matter is nothing but a series of events obeying certain laws. The conception of matter arose at a time when philosophers had no doubts as to the validity of the conception of "substance." Matter was substance which was in space and time, mind was substance which was in time only. The notion of substance grew more shadowy in metaphysics as time went on, but it survived in physics because it did no harm—until relativity was invented. Substance, traditionally, was a notion compounded of two elements. First, a substance had the logical property that it could only occur as subject in a proposition, not as predicate. Secondly, it was something that persisted through time, or, in the case of God, was outside time altogether. These two properties had no necessary connexion, but this was not perceived because physics taught that bits of matter are immortal and theology taught that the soul is immortal. Both, therefore, were thought to have both the characteristics of substance. Now, however, physics compels us to regard evanescent events as substances in the logical sense, i.e. as subjects which cannot be predicates. A piece of matter, which we took to be a single persistent entity, is really a *string of entities,* like the apparently persistent objects in a cinema. And there is no reason why we should not say the same of a mind: the *persistent ego* seems as fictitious as the *permanent atom.* Both are only strings of events having certain interesting relations to each other.

Modern physics enables us to give body to the suggestion of Mach and James, that the "stuff" of the *mental* and *physical* worlds is the *same.* "Solid matter" was obviously very different from thoughts and also from the persistent

ego. But if matter and the ego are both only convenient aggregations of *events,* it is much less difficult to imagine them composed out of the same materials. Moreover what has hitherto seemed one of the most marked peculiarities of mind, namely *subjectivity,* or the possession of a point of view, has now invaded physics, and is found not to involve mind: a photographic camera has it to precisely the same extent. Two cameras in different places may photograph the "same" event, but they will photograph it differently. Even chronometers and measuring-rods become subjective in modern physics; what they directly record is not a physical fact, but their relation to a physical fact. Thus physics and psychology have approached each other, and the old dualism of mind and matter has broken down.

It is perhaps worth while to point out that modern physics knows nothing of "force" in the old or popular sense of that word. We used to think that the sun exerted a "force" on the earth. Now we think that space-time, in the neighbourhood of the sun, is so shaped that the earth finds it less trouble to move as it does than in any other way. The great principle of modern physics is the "principle of least action," that in going from one place to another a body always chooses the route which involves least action. (Action is a technical term, but its meaning need not concern us at present.) Newspapers and certain writers who wish to be thought forceful are fond of the word "dynamic." There is nothing "dynamic" in dynamics, which, on the contrary, finds everything deducible from a law of universal laziness. And there is no such thing as one body "controlling" the movements of another. The universe of modern science is much more like that of Lao-Tze than that of those who prate of "great laws" and "natural forces."

The modern philosophy of pluralism and realism has, in some ways, less to offer than earlier philosophies. In the Middle Ages, philosophy was the handmaid of theology; to this day, they come under one heading in booksellers' catalogues. It has been generally regarded as the business of philosophy to prove the great truths of religion. The

new realism does not profess to be able to prove them, or even to disprove them. It aims only at clarifying the fundamental ideas of the sciences, and synthesizing the different sciences in a single comprehensive view of that fragment of the world that science has succeeded in exploring. It does not know what lies beyond; it possesses no talisman for transforming ignorance into knowledge. It offers intellectual delights to those who value them, but it does not attempt to flatter human conceit as most philosophies do. If it is dry and technical, it lays the blame on the universe, which has chosen to work in a mathematical way rather than as poets or mystics might have desired. Perhaps this is regrettable, but a mathematician can hardly be expected to regret it.

1. See e. g. Santayana's Egotism in German Philosophy.
2. The chief argument against this tradition is that the book is not very long.
3. The Principles of Natural Knowledge, 1919; The Concept of Nature, 1920; The Principle of Relativity, 1922. All published by the Cambridge University Press.

SELECTED BIBLIOGRAPHY

Russell, B.: Philosophy, 1927
Russell, B.: Selected Papers, 1927
Benrubi, I.: Contemporary Thought of France (Library of Contemporary Thought), 1926
Contemporary American Philosophy (ed. by G. P. Adams and W. P. Montague), 2 vols., 1930
Contemporary British Philosophy (ed. by J. Muirhead), 2 vols., 1924-1925
Ducasse, C. J.: Philosophy as a Science, 1941
I Believe (a Symposium), 1939
Joad, C. E. M.: Return to Philosophy, 1935
Jones, W. T.: Contemporary Thought of Germany (Library of Contemporary Thought), 1931
Lewis, C. I.: Mind and the World Order, 1929
Living Philosophies (a Symposium), 1931
Otto, M. C.: The Human Enterprise, 1940
Stace, W. T.: The Destiny of Western Man, 1942
Whitehead, A. N.: Adventure of Ideas, 1933

KANTIANISM

By A. C. Ewing

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By A. C. Ewing

IN THIS ARTICLE I shall confine myself to an estimate of the present and recent influence of Kant in the English-speaking world. I am not sufficiently versed in recent German or French philosophy to give an account of his influence in these countries, which is no doubt important. As applied to English-speaking philosophers the title of this contribution is a misnomer if it is taken as implying the existence of a definite school of Kantians. No important group of English philosophers have ever adopted this title, and the Neo-Kantian school in Germany has on the whole exercised little influence in Great Britain and, I think, in the United States. Nor should I describe myself as a "Kantian." But the absence of the name does not mean that Kant's influence has not been very real and powerful. In Great Britain we may trace four stages in this matter. First, there was a long period during which Kant's work, at least outside the field of ethics, was very little known and still less understood. He was thought of chiefly as a reviver of the doctrine of innate ideas in reply to Hume and a defender of a form of subjective idealism. This period lasted till the 'seventies, when he began to exercise a powerful influence on English philosophers indirectly through Hegel. This second period was one of the most brilliant in English philosophy, though the Hegelian school has by now almost ceased to exist. Among the great names associated with the movement were Green, Caird, Bradley and Bosanquet. But, while Hegelian influence had the effect of inducing people to familiarize themselves with Kant, the work of interpreting the latter suffered a good deal because he was regarded mainly and primarily as a stepping-stone to Hegel. (Locke and Berkeley were regarded

primarily as stepping-stones to Hume and Hume as a stepping-stone to Kant.) There is undoubtedly a certain value in tracing the development of ideas through a succession of philosophers, especially if we regard the later stages chronologically as the more advanced philosophically, but it must be admitted that a person who looks at Kant mainly with a view to finding anticipations of Hegelianism and contradictions which can only be removed by emending Kant so as to make him like Hegel is not in the best position to interpret Kant's meaning objectively and find out what he really meant and why he meant it. The understanding of both Kant and Hume has likewise suffered because as sceptic and refuter of scepticism they have been set in too sharp opposition to each other. Thirdly, there followed the reaction against idealism at the beginning of this century. Idealism was regarded as primarily an epistemological doctrine which drew unjustified conclusions in or, in the case of Kant, against metaphysics on the strength of its fallacies in epistemology, and Kant was regarded as one of the chief sinners. Prichard's book on *Kan't Theory of Knowledge* is typical of this period, as Caird's *The Critical Philosophy of Kant* is of the second period. But, fourthly, as the epistemological controversy between "realism" and "idealism" began to grow stale, there developed an increasing interest in Kant for his own sake. Recent commentators, without themselves taking the title of Kantian or being exclusively Kantian in their own philosophy, are concerned not with using Kant partly as a confirmation of their own opinions and partly as an awful warning of what happens to philosophers who do not adopt their opinions, but principally with finding out what Kant meant. The two great English commentaries on the *Critique of Pure Reason* which have appeared since the last war, those by Kemp Smith and Paton, agree in this, though in other respects they differ greatly. According to Kemp Smith, who is here much influenced by the great German commentator, Vaihinger, the best way of approach to an understanding of the *Critique of Pure Reason* is by a division of it into less and more mature parts. For the work is held to have been

composed of passages written at very different times and put together with such haste that it is simply bristling with contradictions, which however are held to enhance rather than diminish its value for the student since they enable Kant to do justice to all sorts of different tendencies and suggest all sorts of possibilities instead of developing only one consistently. Paton, on the other hand, insists that the *Critique* must be regarded as a unitary work forming as consistent a whole as any original and revolutionary work in philosophy is likely to do, claims to remove most of the alleged contradictions, denies in almost all cases the validity of the distinction made between more and less mature parts and gives an exposition of the work more sympathetic than that of any other English commentator.

But I take it that the purpose for which I have been asked to write this article is not to discuss the detailed issues of Kant interpretation between commentators, but to give an account of the main points where modern philosophy is influenced by Kant. This influence is perhaps more often unconscious than conscious in the sense that Kant's influence must not be understood as confined merely to that produced on a subsequent writer by reading him, but must be regarded as including indirect influence through writers whose opinions were affected by their own reading of Kant and who then influenced others. Viewing the question in this way, we must ask not what doctrines a given writer directly took from Kant, but what are the prevalent lines of thought which are essentially Kantian in character.

The chief feature of the present epoch in philosophy has been the move in the direction of empiricism. In some respects this movement, it must be admitted, would be anathema to Kant, who was a rationalist by temperament and training, but modern positivism, one of the extremest forms of empiricism ever known, has at least this in common with Kant's doctrines that both explain the *a priori* by reference to the presuppositions without which human knowledge would be impossible and therefore conclude that we can

have no *a priori* knowledge of the independent structure of reality. But while modern empiricists explain it by reference to the structure of language, Kant explains it by reference to the fundamental fact that human experience occurs in space and time. As a result of this difference Kant was able to hold that general propositions about the objects of *science* could be known *a priori* without the propositions being verbal or merely conventional; but his proofs of the particular categories, though I think they require much more attention than they generally receive, are usually regarded as invalid. More importance is attached to the general argument of the transcendental deduction, but I shall speak of this later. The positivist could even cite passages in Kant in support of his view that so-called "metaphysical propositions" are not false but meaningless. He would, however, part company with Kant when the latter admits an *a priori* objective ethics and uses it as basis for a theology. It may indeed be doubted whether, when Kant refers to the categories as having no meaning outside the realm of experience, he means more than that as thus applied their objective validity cannot be established or that they are purely formal, and certainly his admission of the truth of his theological postulates, is incompatible with the assertion that the categories have no meaning beyond experience, if it is taken as signifying more that this. But Kant agrees with the positivist in ruling out *a priori* all theoretical metaphysics and claiming to show that the questions which the metaphysician tries to answer are from their very nature unanswerable for the human mind.

He also agrees with the positivist in interpreting physical object propositions in terms of human experience. The second edition of *Refutation of Idealism* in which Kant claims to prove the existence not only of "representations" but of "objects in space outside me" has been a standing puzzle for commentators, because it seems flagrantly to contradict other passages where he speaks of physical objects as consisting only of our representations, but it becomes clear when we realize that Kant is only expressing in his own way what modern

thinkers express by insisting on the one hand that physical object propositions are true and on the other that they are analysable in terms of sense-data. The "idealism" that Kant attacks is the idealism which asserts that physical objects are merely "imaginary entities," i.e. that all physical object propositions are false, a view which he mistakenly ascribes to Berkeley. The "idealism" which he defends is the idealism which admits that we can have genuine knowledge of physical objects but analyses them as phenomena. I doubt myself whether there is as much difference between the two kinds of idealism as Kant or modern thinkers would like to maintain, but it was certainly Kant's intention sharply to differentiate them, as it is, for instance, G. E. Moore's, and this explains how Kant could say that one cannot be an "empirical realist" without being a "transcendental idealist," i.e. if we believe that propositions about physical objects give us information concerning things-in-themselves we must regard them as all false or ungrounded, but if we believe that they give us only information concerning phenomena we can accept them as true. Kant, however, added what is a necessary supplement to the positivist account: the notion of causal laws must be included in the analysis of physical object propositions, otherwise there is no distinction between science and fairy tales, or between genuine perceptions and dreams. For in any case a physical object statement does not mean merely that I have certain sense-data, it means at least that other normal human observers would "perceive the same object," i.e. under similar conditions, have similar sense-data, otherwise I am talking not about physical objects but only about my own private experiences. But to assert this much is to assert a causal law about the experiences of human observers. Objective succession for Kant is succession fixed by law, since it is their compulsory definitely fixed order which distinguishes the perceptions of an objective succession from a merely subjective one. Perhaps the positivists might have done better if they had not ignored Kant's attempt to prove causality.

Kant of course also agrees in his view, that the belief in

physical objects can only be defended if it is definable in terms of human experience, with many philosophers who are neither positivists nor positivistically inclined. He was indeed, much more than Berkeley, who had hardly any followers prior to Kant, the founder of the "idealist" school. But it is a very curious fact that, while a generation ago the philosophers who supported Kant in his view of the physical world were generally rationalistic, monistic and methaphysical, those who support Kant's view in this respect now are more usually empiricist, pluralistic and positivistic. If I were asked which line of thought Kant would himself favour most I should say that when thinking of metaphysics he favoured the former in his personal beliefs (though never going as far as they did), but the latter in what he alone with his characteristic conscientious caution admitted to be knowledge.

But there is another equally important subject of interest for Kant. When thinking of physical science Kant was thoroughly convinced of the truth and necessity for science of *a priori* propositions which were not merely conventional. In the latter point he was in agreement with almost all thinkers up to his date, but he claimed to have provided the first cogent proofs of these propositions. Further he achieved this by the adoption of a new method, which he indicated by the use of the adjective "transcendental." Kant's "transcendental method" was a method of proof by showing that the proposition proved was a necessary presupposition of "experience" (*Erfahrung*). Now, when Kant has occasion to define "*Erfahrung,*" he defines it as empirical judgement or empirical cognition, so what Kant is doing is to effect a proof by the "this or nothing argument" characteristic of the "coherence theory," i.e. by arguing that certain principles must be true because they are presupposed in all our empirical knowledge. Kant has indeed some claim to be the originator of the coherence theory of truth, and the supreme importance he assigns in ethics to the possibility of consistent universalization entitles him also to be regarded as a precursor of its application to moral philosophy. Kant's *a priori*

principles hold, not because they are logically necessary in themselves, but because they can, according to him, be shown to be presupposed in all our thought about anything, so that we cannot get rid of them without ceasing to think and therefore even to recognize physical objects as such, since it is one of Kant's great contributions to show to what extent even the mere recognition of physical objects involves thought. And the function of knowledge for Kant, as for the coherence theory, is to organize our experience and not to correspond to a reality independent of human thought. The coherence theory has now fallen on evil days, but it has reappeared in strange guise in the positivists. Before assimilating Kant to Carnap on that account we must, however, remember that Kant was thinking not of the structure of language but of the structure of experience. Linguistics play no conscious part in Kant's philosophy, and he insists strongly against Leibniz that mathematics and certain other *a priori* propositions are synthetic, not analytic. His problem was to explain how a proposition can be *a priori* and yet give new information in advance of experience, while the corresponding problem of the positivists is how an *a priori* proposition can *seem* to give new information when it does not really do so. Kant's answer to the problem is that it can give new information when and only when it is a fundamental presupposition of experience or deducible from such presuppositions, just as the advocate of the coherence theory maintains that any proposition which can be really proved is only proved by showing that it is presupposed in the rest of our knowledge or deducible from what is so presupposed. (It may be argued that the coherence theory of truth is easier to defend when applied to appearances than when applied to reality.)

Portions of Kant's philosophy the influence of which have been very slight in recent years are his theory of mathematics, his "metaphysical deduction," his doctrine of the thing-in-itself and his curious theory of freedom with its sharp separation between the real and the phenomenal self. Nor can we

say that his proofs of the categories have found wide acceptance in any quarter. I merely mention this as a historical fact, and am not saying that the doctrines in question do not contain or suggest philosophical ideas of great value, even though one can hardly defend their *ipsissima verba.* But it is certain that if Kant was wrong in anything he was wrong in his assertion that his philosophy hangs together to such an extent that it must either be accepted as a whole or rejected, and all sorts of philosophers who violently disagree with certain parts of his doctrine have taken valuable hints from other parts. His criticisms of the traditional metaphysical arguments for the existence of God and of the doctrine of the soul as a substance, his doctrine of the inseparability of perception and conception, his emphasis on the unity of knowledge and his phenomenalist view of the physical world giving one a kind of "realism" within "idealism" have directly or indirectly exercised a tremendous influence in most varied quarters from pragmatism to absolute idealism. Perhaps the most important influence of all is indeed negative, namely, that certain arguments and ways of approach which seemed conclusively valid before Kant have now come to appear just fallacious and irrelevant.

In the sphere of theology Kant strikes the balance very well between the dogmatism which asserted the certain truth of definite clear-cut *a priori* propositions about God and the nature of the universe and the scepticism, more prevalent now than it was in Kant's time, which asserts all statements about God to be meaningless. He recognizes the possibility that a statement may have a kind of indefinite analogical meaning without having meaning in quite the same sense as that in which scientific statements have meaning and the importance which such statements may assume in the sphere of theology. His attitude on this subject has helped to suggest the notion that religious values may still be retained if we regard the "belief in God" as expressing not an objective truth but a practical or emotional attitude which leads us to act and feel as if there were a God (the *As If Theory*), but Kant would not have admitted that they could be thus re-

tained. He himself unquestionably regarded the belief as objectively true, even though its content was less clear than the content of scientific knowledge, and he viewed the ethical grounds he gave for it as sufficient not indeed to prove with mathematical accuracy but to warrant practical certainty. His attempt to reduce religion almost entirely to ethical terms exercised a great influence in the nineteenth century and, if somewhat one-sided, e.g. in his denial of the intrinsic and evidential value of religious experience, is at any rate a most valuable corrective of certain modern tendencies in theology and constitutes a smashing attack on the superstitious magical element in religion.

In ethics Kant's influence can be traced chiefly in the widespread recognition of ethics as an independent study quite separate from psychology, theology or metaphysics, in the clarification of the idea of obligation even to the extent of maintaining a sharp distinction between this idea and the idea of good, and in the general decline of hedonism in the philosophical world. His principle that the individual should be treated as an end-in-himself might be well regarded as the watchword of modern democracy in opposition to totalitarianism, and his insistence on the necessity that the ethical motive should be pure and on the consequent inadequacy of egoism has been taken to heart by most modern ethics. There are few, if any, noted philosophers who would now defend Kant's ethics *in toto* any more than his other philosophical doctrines, but this does not mean that his influence has not been enormous. It is never to be expected that the doctrines of a pioneer in a given line of development will be acceptable just as they stand when the line of thought which he started has had over a century in which to develop and differentiate itself in various directions, though it must be admitted that it is by then quite impossible to say how much of this development would have occurred in any case and how much in the absence of the pioneer in question would have been still-born.

To return to his epistemology, for this is the part of his

philosophy which has been most studied, Kant saw that the analytic theory of *a priori* propositions was untenable even in mathematics and by his contrast between analytic and synthetic propositions formulated one of the most controversial problems of modern philosophy. He may have been wrong in his solution or even in thinking that the existence of synthetic *a priori* propositions constituted a "problem" at all and had not just to be taken as a fact as synthetic *a priori* propositions are, but in the course of trying to solve what he regarded as the main problem of philosophy he developed doctrines which might well be accepted as substantially true and extremely important by those who would regard Kant's solution as a whole as quite out of the question. That all propositions are partly *a priori* and partly empirical, that the mind exercises a far greater organizing function even in sense-perception than had been realized hitherto so that perception is impossible without conception and we are acquainted with nothing which is merely given without interpretation, that the unity of the self is not that of an unchanging, simple substance but is to be found in the functional unity of its experience, that the knowing self and its objects are correlative so that there can be no self without objects and no objects without an experiencing self, that physical objects are best regarded as systems of sense-data unified by the general laws common to all human experience, are doctrines which, whether right or wrong, clearly emerge from the transcendental deduction and which have exercised a great influence ever since. On the whole, however, it is the negative rather than the positive side of Kant's thought which is most influential at the present day. As regards the *Dialectic,* it must be admitted that Kant has at least shown that when we use categories such as cause and substance in transcendental metaphysics we are using them in a radically different sense from that in which we use them in either science or common-sense thought about ordinary objects, and by bringing out this point, Kant has greatly weakened the faith of most philosophers in metaphysical proofs. The path to metaphysics which Kant still left open for him-

self has been less carefully studied. Espistemologically he may also be regarded as having originated the view of *a priori* propositions as postulates, which are either absolutely necessary for human thought, in which case they are proved, or at least extremely valuable as guiding principles for thought or action, in which case we should proceed as if they were true without dogmatically saying that they are so. To the former class belong the Categories, to the latter the "Ideas of Reason," other than God, freedom and immortality, which Kant did regard as objectively true. That the *a priori* postulates in question are in either case arbitrary is certainly not Kant's teaching.

When we wade through the often cumbrous and unclear and the sometimes apparently self-contradictory pages of the *Critiques,* it often seems as if Kant's greatness had been much exaggerated, and it is impossible to escape admitting that either in thought or at least in the expression of his thoughts he made a great many mistakes which we should have expected a philosopher of his calibre to avoid and that he rarely formulated his views in anything like the most satisfactory manner possible. But his greatness is proved by what he actually did in philosophy. He carried out three great and enduring tasks of purification, the purification of science from metaphysics, the purification of ethics from hedonism and theology, and the purification of religion from superstition and logical fallacies. He originated the critical, empirical attitude of modern times while retaining safeguards which modern positivists would have done better not to cast away, and as if by the way he sent out influences which have fundamentally affected almost every present-day school of philosophers.

SELECTED BIBLIOGRAPHY

Kant, Immanuel: The Critique of Pure Reason
Kant, Immanuel: The Critique of Practical Reason
Kant, Immanuel: The Critique of Judgment

Caird, Edward: The Critical Philosophy of Immanuel Kant, 2 Vols., 1909
Ewing, A. C.: "The Paradoxes of Kant's Ethics," Philosophy, XIII. pp. 40-56
Lindsay, A. D.: Kant, 1934
Paton, H. J.: Kant's Metaphysic of Experience, 2 Vols., 1936
Paulsen, Friederich: Immanuel Kant, His Life and Doctrine, 1902
Smith, N. Kemp: A Commentary to Kant's Critique of Pure Reason, 1923
Vaihinger, Hans: Kommentar zu Kants Kritik d. reinen Vernunft, 1881
Ward, James: A Study of Kant, 1922
Whitney, G. T. and Bowers, D. F.: (editors), The Heritage of Kant, 1939
Kantstudien: Philosophische Zeitschrift und Ergaenzungshefte

PHILOSOPHY OF HEGELIANISM

By Richard Hoenigswald

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THE WORD "HEGELIANISM" has various meanings. Hegel's philosophy has been revived and given credence. It has then been regenerated and evaluated in the light of specific problems. In this process, motives which in Hegel's teachings were bound together in a systematic whole, have often become separated from their connection with his system and have worked as independent factors. This, however, has meant important changes in their methodical content, changes conditioned in each case by the new relations with which they were involved. Often enough, moreover, a great variety of consequences follow from the inherent contradictions of the system itself. The revival of Hegel is by no means always a conscious procedure, and often enough hides behind strange formulas. In considering Hegelianism it seems, therefore, extremely important to make sure first of all what Hegel's own motives are.

To begin with, three influences determined Hegel's thought: the Enlightenment, philosophical Romanticism and Kant. Hegel, however, combines these elements with forceful, one may say with artistic, originality, into a unity of wide dimensions, and one incomparably rich in relationships.

One feels the influence of the Enlightenment in Hegel above all in his assertion of the notion (Begriff); in his unshakable reliance on logic; in the rigor of his argumentation; and not least of all in his conviction of the teachableness of philosophy. Romantic, on the other hand, are his emphasis on activity in the process of learning; his strong feeling for the "inspired" work of the past; his preference for the "whole" and the "concrete" as opposed to the abstract, the schematized, the limited, the dead, the dismembered, and

the lifeless. Romantic above all is his characterization of the notion as no longer a vague universal, but rather the concrete in all its definiteness. Hegel's inexorable logic reveals his sense of that which is individual. In Hegel's notion, philosophical Romanticism parts company with mere romantic dreaming. In the spirit of Romanticism, Hegel, as it were, completes the Aristotelian thought of the tóde ti. To be sure, his conclusion deviates widely from that of Aristotle. There is no place with Hegel for any metaphysical "form" which is viewed as the essence of the individual; nor for a "principium individui" which the Aristotelians of the Middle Ages held to be responsible for each single phenomenon. With Hegel, however, the definiteness of the concrete constitutes a very real problem. Leibniz, too, as we know, was also concerned with this definiteness, and not only in the sense in which he was opposed by Hegel. At any rate, metaphysics never means for Hegel the deviously and surreptitiously arrived-at knowledge of things outside of knowledge, but rather the unity toward which every thinkable claim to definiteness with reference to every other claim is oriented. This unity depends on nothing outside itself. Indeed, it does not even tolerate the thought of an "outside." It is for this very reason that it may be called "absolute." For it *is* absolutely everything; and everything that exists in a manner free from all limitations of mere individual viewpoints, and so, from all "abstractions" of reflection, is just that unity alone. In order to prevent any misinterpretation of this unity as adhering to anything, Hegel calls it Spirit (Geist). Spirit therefore signifies not a metaphysical ghost, but that totality which is realized or made actual in each individual thing: the unity of all definiteness. In this unity every Being fulfills itself. Spirit therefore means "absolute" Being. Just because, as a unity, it rests in itself, Spirit is the eternally flowing process of the striving and coming-to-itself of knowledge. For this very reason it is the basis also of all manifoldness within that process; the basis of its own differentiation. In a ceaseless process of formation, Spirit integrates itself into an unlimited—an "infinite"—diversity, or, better, into an in-

finite diversity limited only by itself. The philosophical system, however, which thinks all this understands itself as Spirit. In Hegel's system, Being thus experiences its adequate —its absolute—embodiment.

This system does not raise the particular to a universal; it is not "reflection." It constitutes itself rather as notion. Notions, in the plural, are tasks or problems, together with their solution, determined by the totality of Being. Philosophy, concept, method, idea, Spirit, notion, metaphysics and Being here all mean the same thing in the system of Hegel. They mean the sublation (Aufhebung) of all limitedness into something which is both process and effect—"subject" and "substance"—at the same time; positing as well as the thing posited; and thus they mean the contemplation of self; above all, they mean freedom as self-determination.

This system tolerates only absolute notion, not notion as "reflection." These two are related to each other as naive consciousness, even though it may carry on scientific research, is related to that consciousness which is completely fulfilled in the Spirit; or, to put it in another way: they are related to each other as that which is given in naive consciousness is related to the object which has been mastered by the idea, and has become part of philosophical knowledge. Naive consciousness is "for itself"; the object as merely given and not philosophically mastered is "in itself"; and it is only the philosophical overcoming of both in the totality of Spirit that is "in and for itself." We find these motives entwined in Hegel's idea of religion. The believer shares in the totality of the spiritual (das Geistige), which lifts him above himself. Religious love, however, means the leading back of that which has been separated to the unlimited and yet completed unity of a highest form of Being. It is thus religious mysticism as the original form of a romantic theory of the notion. Outside the sphere of the real notion, there is thus only relative definiteness and conditioned individual existence. It is philosophy alone which brings everything into the numerator of the Spirit, and thus anticipates the tendency in the devel-

opment of all science toward an unattainable niveau. To be sure, Hegel never succeeds in thus converting science from a function of definiteness into the mere appearance of definiteness. Nevertheless, for him science vanishes without sharp outlines in the Spirit. It dies away, as it were, with all its relationships, in the fullness of tone of an instrument which constructs itself as it plays, and hears only itself alone, i.e., through the ear of the Hegelian systematic. With this thought, Hegel no doubt is pointing toward a characteristic of all scientific method. It, too, in the last analysis rests in itself, in the idea of objectivity, behind which nothing is to be sought or found. From this follows the self-assurance of research, which is nowhere more clearly shown than in methodically founded doubt. Meanwhile, method means for Hegel not the establishing of a basis, but rather an infinite process of the self-differentiation of the self-positing Spirit. Hegel's much discussed helplessness in the face of actual facts has its roots deep in the structure of his system; but this structure must not, vice versa, be evaluated on the basis of this helplessness alone.

Further, the problem as to whether or not and to what extent Hegel succeeded in overcoming Kant's "thing-in-itself" is a separate question. At any rate, this was his aim. In a metaphysics of the Absolute Spirit, realities beyond the realm of knowledge, in so far as the "thing-in-itself" represents such realities, cannot exist. And here we come to the third component which is present along with the Enlightenment and with Romanticism in the structure of Hegel's system.

The self-positing of the Spirit, however, means a positing which is a sublating of its state of tension into its opposite: thesis, antithesis, and synthesis. It means the dialectic. The classical word embodies a great tradition. Yet with Hegel it has been widely separated from this tradition. Here, it is no longer concerned with the art of argumentation, but rather with the being of objects; not, however, according to the conditions of their existence, but in order to overcome their limitedness

by raising them to the level of the sphere of the Spirit, that is, to the "idea" or "notion." Logic now becomes in a specific sense metaphysics, and so, the fulfillment of all knowledge. On this basis, Hegel departs sharply from his contemporaries and fellow-travelers, Fichte and Schelling, with their always negative "reflection" and their adherence to the limited, even though they may have believed themselves to have arrived at an Absolute. Hegel opposes to this "negative reflection" his own "positive reflection"—a reflection contained in the notion and its dialectical structure. In the outlines of this structure lies the whole existence of culture, as science, art, history and faith—and finally, above all, as the State. Each of these shows the law of the notion at a special stage of its development. Transitory in their single, individual forms, they nevertheless reveal, in a continuous development, Absolute Being which, as philosophy, understands itself. But this Being reveals itself to Hegel especially in the enduring present value of all that is historical and in the idea of the historically developed State. He therefore holds them to be actual and in accord with reason at the same time.

Not every appeal to Hegel and not every suggestion of his teachings constitutes "Hegelianism." The metaphysician who, through knowledge or intuition, by suggestion or fancy, aims at realities behind knowledge and its objects, finds no support in Hegel. For it is the reality of knowledge itself, not a reality concealed by knowledge, that forms his theme. Nor does the word "Dialectic," which is so fashionable today, constitute in itself Hegelianism. People often isolate the philosophically relevant meaning of a word, confronted with its easily discovered opposite, and then look for a possible reconciliation of thesis and antithesis. That, however, is, merely specious dialectic and specious Hegelianism. For even the points of departure of dialectical movement never remain with Hegel passively and rigidly outside that dialectical activity itself. Already as points of departure they partake of Spirit; partake, that is, of the being of the concrete, which is not endangered but rather established by the inexorableness

of Hegel's logic. It is not philosophical Romanticism but only dreamy romanticizing that is foreign to the notion.

But could Hegel himself guard against the consequences of his demands? To be sure, outside the Absolute there is no beginning and there are no conditions. But in proof of these theses, people make certain constructions and thereby satisfy the formal consequences of the arguments; and yet the dialectic triad demanded by the systematic is not there. The system does not make this point clear and so Hegel's notion loses all exactness. The notion constitutes and guarantees absolute knowledge. But how is it constructed according to the infinitely graduated phases of philosophical argumentation? Further, the competence of the notion for all objects does not here rest on insight into the structure of the object. It remains an open question why "all" objects satisfy the notion. To put it in another way, the question remains as to whether the thing becomes absorbed in the notion without any residue; as to whether the notion does not remain dependent upon this residue; as to how the universal and the concrete are entwined in the notion; in short, as to whether the reflection which is believed to be overcome does not still continue to function under cover of the Absolute.

In Hegel's sense it is only the view which surveys the whole, which surveys the sphere of "reason," that is conceptual (begrifflich), that is "rational," if you will; only the abstracting reflection of the "understanding" is irrational. (It should be noted that the words rational and irrational have here become separated from their customary meaning). But according to what principles does understanding result from reason? How does reason force understanding into its service? The competencies of the notion fluctuate. Reflection lifts its head now here, now there. The romantic-speculative changes only all too easily into the constructive-enlightened. The results of this for Hegel's interpretation of history are well known. His interpretation raises that which is dated in time to an eternal present, to a necessary member of its totality; that is, of its meaning. This lures one into eventually

seeking this meaning in something which can be historically dated. The infinite in concreteness threatens to slip into the finiteness of the historically given—one sees the Absolute Spirit embodied in political realities, as, for example, in Hegel's philosophical glorification of the Prussian State of his day.

A further question arises. Is there room beside history in the Absolute Spirit for the specific eternity of the laws of nature? Hegel avoids the difficulties of this question by postulating nature as "the idea in its being-other." However, this "being-other" is lacking in a principle. For it does not correspond to the antithesis which rises through the thesis to synthesis; it is no "being-other" *within* the method. The idea, so we are told, here alienates itself from itself in order by this very means to find itself again. Spirit as nature dismisses itself into an externality of a time and space which is without subjective being, and does this by immediately taking this externality back into the idea; a process which, considered even from the point of view of Hegel's own teaching, is simply undetermined, different from the dialectical triad, and only outwardly modulated in accordance with this schema—a mythical interpretation, not an analogy, let alone a systematically established insight.

All in all, the incomparable force of this thesis is impressive; but, alas, it quickly becomes lost in an infinite and confused interplay of undulations. Its iron-bound structure is bought at a high price. The unlimitedness of scientific problems, which has been so productive, has disappeared from the competencies of philosophy. To be sure, a step-by-step advance is granted to research this side of the Absolute; but only as the right of the limited and the relative in which the Absolute fulfills itself. Thus the measure for research is found only in the Absolute. Research has lost to philosophy its autonomy and thereby, itself—not to be sure, without implanting in philosophy the germ of its destruction. Such an interpretation of research raises the Absolute to dizzy heights and at the same time debases it to a mere vessel for the limited.

This situation conditions a multiplicity of possible relations which can hardly be overlooked. The sharper their outlines, the greater indeed the departures from the original structure of the system. Thus there arises naturally a multitude of Hegelian "schools." The opposite, in which Hegel saw absolute knowledge guaranteed, is the very thing which endangers its own structure. Sharply antagonistic teachings and irreconcilable political opponents appeal to Hegel with apparently equal justification.

Down to the very latest times there exists, to be sure, a genuine Hegelian orthodoxy (Adolf and Georg Lasson in Germany, and, to a certain degree, G. J. P. J. Bolland in the Netherlands). However, like all orthodoxy, this one, too, reveals itself more in strong personal opinions than in acute problems. Along with these, it accompanies the development of many important trains of thought. It is almost a commonplace to say that present-day philosophy inclines, to some degree, toward metaphysics. It does this for very different reasons and motives, with widely varying clarity as to goals and means; but above all in forms which are reminiscent of Hegel. Many types—principally those native to England—hold the completed system of knowledge free from all contradictions to be that which is Absolute and free from all limitedness of phenomena. This system requires a fundamentally "Last," which includes all that is limited or can be limited. No *thing,* however, even though it be a "thing-in-itself," achieves this. Therefore, the Absolute is not fulfilled in finite man, but only in Divinity.

Just as the causes which brought about the first tangible effects of Hegel were theological, so these effects themselves are theological. They developed soon after Hegel's death in two tendencies which contested violently with each other. The one—which was conservative—corresponds to the thesis of Hegel which was never abandoned: that philosophy manifests itself in a specific way in religion. It culminates in a Christian Theism. The other holds to Hegel's teaching concerning the finality of the notion, that is, of the self-deter-

mining Absolute. It produced a Pantheism. God as the universal substance first achieves complete self-consciousness in mankind. In many transitional forms and radicalisms such teachings could not help but be reminiscent of Schelling and Spinoza. That, to be sure, contradicts Hegel's antipathy to the reflection-notion, yet the consistent avoidance of this reflection-notion for well-known reasons was impossible for Hegel. And so, in many an Hegelian deliberation, reflection-notions usurp the functions of the Absolute. That which is merely universalized becomes a self-positing and dialectically differentiating principle. Politically, this appears in Karl Marx' socialistic party-doctrine with its absolutizing of economic forces; and it appears also, with a related basis, in totalitarian theories of the State and interpretations of history. With a characteristic parallelism to this, special theorems develop. Around the middle of the nineteenth century there arose that robust materialism which, with impetuous but weak self-deception, considered itself to be exact research, and thought to have eradicated all speculation, while it actually only provided matter, as a "mask of the Spirit," with a content which was seemingly more friendly to nature. In radical opposition to this, however, there grew up, on a related basis and with similar absolutistic claims, a spiritualism colored very differently according to differing concrete purposes. If, with Hegel, Spirit was Idea, it now becomes, again with different symbols, soul. To be sure, the references to Hegel are not always immediately perceptible. Before our eyes there develops with wavering intensity a Dialectical Theology (Karl Barth, F. Gogarten, Emil Brunner), which proclaims, not without a suggestion of Hegel's enemy, Soeren Kierkegaard, the unconditionality of the Divine Transcendence. As man's opposite pole, this Transcendence serves him in his helpless loneliness as an inflexible support. By means of it alone he may, through faith, rise out of his subjective lost state to a higher, glorified existence. All faith, of course, suffers from contradictions. But these contradictions now appear in dialectical transfiguration, freed from the deficiencies of feeble subjectivity. The more poignant is the overpow-

ering consciousness of the divinely Far-Off, the greater the nearness to God, the greater the ability to hear the divine "call." One should guard against the idea that only the term, "dialectic," is decisive for the Hegelianism of such theses. Rather does one discover in the transcendent Divinity an Absolute, which determines the concreteness of the individual life, by raising it above itself, through its fulfillment in God, to a more mature community of faith. All this, to be sure, is not "knowledge"; indeed, it is an unmystical insight of a faith which is beyond emotion. But in this very fact an essential relation of both is proclaimed which eventually subjects the Absolute to the Hegelian notion. Wherever and in whatever form the unconditioned appears as regulator, but at the same time as the function of that which it subordinates to itself, there Hegelian motives operate; they operate wherever and in whatever form the finite presents itself as the fulfillment of tasks, which, self-caused and so "infinite," develop only in the finite. For these same reasons, however, Hegel's effect reaches far beyond faith. One needs only to think of Auguste Comte's Positivism. He is, of course, as far as words are concerned, an adversary of Hegel. With him only "facts" and their relations rule the scene. Nevertheless, with a definitive effect, the idea of an order of sciences precedes this tendency, an order in which sociology enters in a new and decisive manner, to found at the same time a theory of history. This theory, however, culminates in two thoughts: first, in the idea of mankind raised as the Grand Etre to the level of a religious object, and secondly in the three stages—the theological, metaphysical, and positive—in which history and society are completed with a suprahistorical necessity. An absolute factor, sure of itself, thus arises in and through history—a sovereign principle, which creates and builds itself in its function of conditioning the order, quality and relevance of facts. That is "Hegelianism."

Still more clearly does the problem of history itself reveal Hegelianism. Already with Hegel history is held to be in each of its phases the embodiment of the eternal Presence, of the absolute concreteness of man. Historical research loses

itself for him in a metaphysics of history. In this, an arbitrary interpretation of facts was never Hegel's purpose. But it lay dormant in the tendency of his metaphysical program. And thus Hegel operates in two directions. He favors scientific historical writing; at the same time, he fosters the equally romantic as well as "enlightened" inclination toward construction. Both tendencies clarify themselves through each other. The ideas strive constantly toward a systematic community. But always they must, with all their self-sufficiency, prove themselves by the facts which they are supposed to construct. Motives such as the public mind or the spirit of the times justify themselves in these points of view; yet they also find therein their limits. And so the famous phrase of Leopold von Ranke, "Every epoch is immediate to God" really proclaims the Hegelian motive: in the highest value of faith the structure and objectivity of history experience their final formation. Divinity embodies Hegel's philosophical system. For this reason, this system becomes, in universal history, the "Day of Judgment." The "inner instinct of reason" shows Hegelian influences on Savigny, and on the historical school of law; one sees the Hegelian influence likewise in the "spirit of peoples," which, according to Wilhelm von Humboldt, constructs language. In each case, to be sure, the influence is coupled with a tendency to avoid all suprahistorical construction. This holds, too, with slight limitations, for the law. Law is, of course, always historically concrete; but as law, it exists in this "concrete," exists that is, as an ideal, self-causing existent. This is a Hegelian motive which is effective without change down to our own time, even where, with differing interpretations, it is contested as in the theory of law as based on interests.

Hegel's "Absolute" no less clearly touches upon the central question of the nature of the system of sciences. The fact that, with Wilhelm Windelband and Heinrich Rickert, it is above all and essentially concerned with the logical place of the science of history, makes the imminent reference to Hegel only the more perceptible. But the problem soon ex-

pands into the question concerning the idea of value in general, and its significance for all theoretical knowledge. Now, just as with Hegel, history becomes the true organon of philosophy, and the question concerning its concept becomes even more clearly that concerning its system, which Rickert, to be sure, conceives as an open system. Philosophy is the meaning of all construction and all knowledge. Each of these fulfills itself as the differentiation of the "one" and the "other" according to the measure of that meaning; that is, in the medium of definiteness. The a-logical participates in this as the "other" of the logical. This means, however, that the "concrete totality" has no limits. Practical reason in its universality reaches out beyond theoretical reason. Knowing and being coalesce, as value and reality coalesce for Hugo Münsterberg. But the system of sciences eventually ends for Rickert, too, in the idea of a universal systematic, that is, in the unity of all possible spheres of culture. Extra-empirical relations of meaning determine for Emil Lask the Empirical-Unique and so owe to the latter their special stamp. The system now takes form as the logic of philosophy itself, or, as with Richard Kroner, in his free interpretation of the Hegelian idea of the Spirit, as a metaphysics of the subject. Here the latter becomes the source and criterion of all objective systematic; above all, it becomes the speculatively posited root of the timeless present-meaning of all history.

The philosophy of North America shows related characteristics, although under special presuppositions. Here, too, there has grown up on theological soil a speculation which is oriented toward Hegel. The philosophy of Josiah Royce probably gives the clearest example of this influence. With suggestions of W. T. Harris, Royce outlines the idea of an all-embracing experience. From this, he asserts, every finite existence receives its meaning and direction; but this experience itself is fulfilled in an absolute subject. A "community of interpretation" receives its positive content from the divine consciousness, which includes all that is fragmentary and finite. In its continual contact with questions of faith and with theology, an ontology of personality founded on

such a basis produces far-reaching effects; as for example, in W. E. Hocking's *Critical Eclecticism,* tuned to a noble ideal of personality, and in M. W. Calkins' *Personal Absolutism,* with its tendency toward a comprehensive interpretation of the history of philosophy. In emphatic and, to a certain extent, polemically colored dependence on Hegel and Lotze, there has arisen B. P. Bownes' *Personal Idealism,* with the thesis of the primacy of practical reason as the source of a complex theory of will, and in opposition to all impersonalism. G. H. Howison champions with a similar tendency the idea of a metaphysical community of all persons, a "universal society of minds" in God. Only as a function of this society (and here one is reminded of Hegel's "being-other" of the Spirit) does nature itself exist. With a different emphasis, J. E. Boodin maintains similar ideas. God is the principle of harmony in the chaos of the world. With J. E. Creighton, the systematic relations to Hegel receive again their old logical shades of meaning. Ch. Renouvier's Hegelian influence—rejection of the "thing-in-itself" and the establishment of freedom in the midst of phenomena—bespeaks this tendency. It extends, too, to the more literary movement in American Philosophy, which is connected with R. W. Emerson; and it even reaches far into the motives of the older and latest pragmatists in their general world-outlook, almost everywhere, however, in correspondence with the romantic tendencies of Hegel. The result is a voluntaristic psychology with greater or less leaning toward a critical study of the self.

Certainly the ever-growing realism in America shows no sympathy for any kind of romantic "exaggeration." Nevertheless, many a realist, in the midst of biological, behavioristic and materialistic motives, is laboriously concerned with the Spirit and its demands, which are capable of systematic consideration. The structure of the problems thus presses for an argument with Hegel—now on the ground of Renouvier, now under the veil of an Aristotelianism which is especially supported by F. J. E. Woodbridge, and which is fostered in many schools of philosophy.

French Hegelianism, no less, shows characteristics of widely varying significance. F. Ravaisson, Ch. Secrétan, E. Vacherot, and A. Gratry represent its most important interpretations, but influence the younger generation largely only through their strongly emphasized psychological, spiritualistic and Christian motives. Often enough they pass, without sharp outlines and far removed from Hegel, into sociological considerations.

Benedetto Croce gives his Hegelianism clear outlines. To him the world is Spirit and Spirit is history. In a unified self-development with many gradations, it presents itself in four correlative phases,—four constellations of objectively established tasks, with a corresponding number of forms of psychical activity. A process developing and maintaining itself by its opposites, Spirit thus means a continual return of typical phases to ever higher levels. It is no accident, therefore, that Croce gives special attention to G. B. Vico's philosophy of history, and that for him the fundamental problems of philosophy develop along the line of aesthetics. For the work of art embodies especially clearly the completed whole and absolute,—that which is subject to no outside conditions. The idea that all reality is absorbed in the creative acts of the freely self-determining Spirit forms the fundamental thesis of Giovanni Gentile. It is clear that Hegel's thought is given a subjective touch in this motive of the free act. History fulfills itself in the acts of the historian—always, indeed, as a function of Spirit. The historian raises himself by means of his object to the Absolute; but he at the same time binds the concept of the Absolute to the meaning and existence of acts of positing. So the relation to Hegel gradually changes from the ground up, until finally, with Giuseppe Rensi, the real sinks to the level of the unreasoned, the reasoned to the level of the unreal. For the reasoned, he says, always lies in the future: it is a combination of idealistic and skeptical trains of thought. The unlimited self-development of the Idea as Law, State, and Morality, despite all its fluctuations, forms the basic motive throughout Italian Hegelian-

ism, which takes shape, now as a naturalistic theory of development, now as a metaphysical-psychological theory of will; appears here as a speculative critique of religion, there as a theory reminiscent of Thomas Buckle's original historical materialism; but least of all does it appear anywhere as a consequent, critical elaboration of Hegel's problems free from secondary aims.

The importance of Coleridge and Carlyle, with all their worship of Kantian Idealism, does not lie in the field of philosophy. Thomas Hill Green outlines in a strong polemic against empiricism and materialism the concept of a universal consciousness, unrelated to time, which, as knowledge, finds its embodiment, related to it in essence, in the finite, in that which is bound to animal nature. For, as divine principle, it realizes itself not in impersonal humanity, but rather in biologically real persons joined in a community. Edward and John Caird develop the Hegelian philosophy of religion in an analysis of the Infinite; the former, in combination with the problem of development, the latter in a polemic against empiricism and skepticism. F. H. Bradley, from the contradictions in the basic determination of phenomena, arrives at an absolute reality free from contradictions, and contained in the harmony of phenomena themselves. The fact that he identifies them with the essence of experience constitutes his special interpretation, and requires an expansion of the concept of experience, which culminates in a specific theory of judgment. It is true, he says, that the single judgment remains relative. But, by means of its structure, that is, of the meaning which the functions of its elements reveal, it "transforms" phenomena into the Absolute. Bernard Bosanquet and William Wallace move in the same sphere. Wherever it is a question of truth, they assert, the reference to a systematic of reality cannot be lacking. This systematic always encompasses the concrete as members of itself; but in every concrete a world is revealed. The relation of nature, which is theoretically understood, and above all experienced by the senses, to the soul, the relation of the soul to the Absolute, and of the Absolute to contradiction, form the fur-

ther phases of Hegelian speculation, which, accompanied by vistas into the theory of development, finally, as with Plato, leads to a theory of the Good.

The ununified multifariousness of these motives, quite apart from Hegel's logic, but so to speak as the confirmation of this logic, could end only in ontological, monadological, psychological, religious, and positivistic reflection-notions. The unmistakable striving toward a rejuvenation of original motives of Hegel (R. B. Haldane, J. B. Baillie, David G. Ritchie) makes little change in this general aspect, even when those efforts, in view of the relatively isolated problem of the word, as with William Temple, are given a special color. Only Samuel Alexander's Metaphysics, which appears as a "description" of reality, remains to be mentioned. This description of reality, according to him, having begun with the mutual relationship of space and time, builds itself as a series of realms or spheres, to which an imaginative nature-philosophy attaches itself with the thesis that the world itself is the "nisus" toward divinity.

Bertrand Russell's real contribution lies in the fact that he gave to logic, as the science of all possible relations, a mathematical aspect, and thus, also, gave to mathematics a logical aspect. In this he was following in the path of Peano, Couturat, M. Cantor and Frege. There are in Russell remnants also of a tradition stemming directly from Leibniz, which give rise to some significant points of detail; but we need not here undertake a critical evaluation of these. Even Russell, however, wrestles above all with the totality of being, although still using the weapons of empirio-criticism. This totality, to be sure, no more arrives at a systematic clarity for him than does the underlying concept of order itself. And yet, there are here exact problems which eventually point toward Hegel. The mathematical logic of our day, which was suggested by Russell, will not permanently be able to evade these Hegelian problems.

To the leader of the Dutch school, G. J. P. J. Bolland, is credited, along with productive deviations from Hegel as to

the concept of nature and to aesthetics, keen sensitivity for the significance of language. Yet in this respect, it is as difficult to surpass Hegel as to surpass his contemporary Wilhelm von Humboldt. According to the latter, the word absorbs into itself the "nature of the thing." It is in the word that "real" thoughts first achieve their objectivity, as the expression of "greatest inwardness." This idea is reflected already in Hegel's peculiar, much criticized manner of expression. He strives—often enough in vain, but often also with astonishing success—to make the object concrete through language; to reveal in the word that which determines itself as Absolute in the upthrust of the dialectical process itself.

The Dane, I. L. Heiberg, succeeded in anticipating certain detailed results of Hegel's philosophy, but his Hegelianism bore no lasting fruits. The Hungarian Hegelian, Karl Böhm, although burdened with many reflection-notions of physiological, psychological, ontological and value-philosophical origin, had a more lasting influence. And in Russia, Hegel's influence reaches far into the political sphere, above all through the medium of theoretical materialism.

Hegel, in view of the Absolute, the Spirit which forms the world itself, never held the evolution of nature to be philosophy. Nor did considerations of natural science move him. And yet the motive of development received from Hegel decisive support. For all development, even when, as with Herbert Spencer, it threatens to overlook the really creative forces, takes into account a self-fulfillment of nature in a continuity of the sequence of events, that obeys laws and at the same time conforms to an aim, i.e, to an Idea. These events follow each other according to the same schema as that of the unfolding and development of thoughts. Thus the problem of nature, along with its obvious reminders of Schelling, has a reciprocal relationship to the fundamental teachings of Hegel. Everywhere there are contradictory factors in conflict and balance; aims the conditions of which are fulfilled by phenomena as such; ideas which, however, obscure the reason for it may be, are themselves realized in these aims. Traces of Hegel's influence reach as far down as

that "overturning and re-valuation of all values" which leads to Friedrich Nietzsche's *superman.* And finally, even Nietzsche's *heroic* component, a positive evaluation of negative factors, embodies the great dialectic tradition, into which Hegel's thought is integrated.

One may easily discern Hegelian elements also in "Existential Philosophy" expressed with varying shades of meaning by Martin Heidegger, Karl Jaspers, and Nicolai Hartmann, in which they wilfully produce a synthesis of ontology and Kierkegaard, of phenomenology and a romanticising historical analysis of the 19th century. These elements, however, do not constitute essential factors of their inquiry. A positing that is merely an overflow of terminology, and mere dialetical combination of conflicting factors, are not Hegelianism.

The situation is essentially different with the thought of Rudolf Eucken and Wilhelm Dilthey, the structure of which is not as clear and sharp in outline as it is full and rich in content. Eucken is concerned with the unity of the life of the Spirit, with the comprehensive relations into which every individual thing is integrated; with the kingdom of reason which is realized in personality, rather than in an empirical subject. This means an ideal, through which reason, in an independent spirituality, comes to itself and to the heart of things. In the uplifting of existence to a "world-personal" experience, the Platonic ideas of the true and the good reveal themselves. Dilthey, to be sure, rejects Hegel's metaphysics. But concrete unity is his problem, too; the structure of history; the unconditionality of this structure, i. e., the permanence and absoluteness of the Spirit in the midst of the vicissitudes of its development. From this the "Life-philosophy" so emphatically proclaimed in our times (if it does not become a desert waste of mere Biologism) gets its characteristic features. This is true above all of Georg Simmel's thesis that life determines itself by transcending itself. There develops for logic out of this total situation, however, the task to which Hegel gave such deep significance—that of justify-

ing itself as a theory of method for history. And so, with Eduard Spranger, following in the path of Dilthey, the totality of the Spirit as a super-individual relation, as the timeless in the historical, becomes a cultural-philosophical and at the same time methodologically-directed program.

Just as the orientation toward Hegel grew out of the logic of the humanities, so there grew out of this orientation, in turn, the striving for a deepening of this logic. With Ernst Troeltsch, both motives are entwined and, with explicit affirmation of Hegel's inner logic, strive for development: in the idea of historical dynamic, in the idea that personal assertions of value are fundamentally bound up with the meaning of all life-movement. Even Edmund Husserl's phenomenology strives to proceed from the individual spirit to the whole field of the universal. Thus Hegel's fundamental motives, quite apart from the phenomenological plan of a pure logic, gain definitive significance through this sphere of thought, which, as far as the system is concerned, is far removed from those motives. The isolation of that which is surveyed phenomenologically takes place within a comprehensive medium. Theodor Litt produces, in conscious relation to Hegel and the dialectical sphere of thought, the idea of civilization understood as the individual expression of original cultural relationships founded on contradiction. In the sphere of this relationship that which is individual appears in isolation and yet systematically united with other individuals. The unity and integration which the forming of any society presents give rise, naturally, to related tasks; here, in connection with the problem of language, there, in connection with ideas of pedagogy, history and politics. Everywhere they proceed towards the concrete-universal, everywhere, therefore, they point toward Hegel.

In this connection, the Neo-Kantianism of the Marburg order arouses especial interest (Hermann Cohen, Paul Natorp, Ernst Cassirer). Like Hegel, it denies the "thing-in-itself" as a limit, and sees in it instead the embodiment of the meaning of all research which is fulfilled in the con-

cept, i.e., the presuppositions of this research as well as the norms of its system.

The Absolute Spirit demands the self-justification of philosophy. In each of its phases, philosophy therefore appears to this Spirit as a whole. In this way the history of philosophy documents the eternal present—documents, that is, the system of its tasks, or, to put it differently, the ultimate fate of its problems, and so, of the problem of the idea of philosophy—a fate which is ever fulfilling itself anew. Only from this viewpoint, therefore can it be treated and understood as history. This, however, distinguishes philosophy from every other science. It is presented again and again with the problem of its own idea in the changing current of time and events. Fact and history of philosophy are henceforth one. Thus, because of the rigor of its systematic, it exists in the flux of a continual development of which it is itself the principle.

The problem-history of philosophy is, as a system, both open and closed at the same time: it is the new and methodically established meaning of the Absolute Spirit, and at the same time the measure of philosophic-historical achievements. These achievements, if they are to produce history, must remain true to their source; but the decision as to the relevancy of the sources lies with the systematic of the problems. This systematic develops the possibility, the conditions, that is, of that which is historically given.

This consideration of history and culture led, in the school of Dilthey, to the differentiation between a psychology which analyzes and one which "understands"—the latter being a psychology which is significant for scientific history. Here the problem of psychology appears under conditions or presuppositions which point back toward Hegel. What, then, actually follows from Hegel's relation to psychology for its problems and for Hegelianism? First of all "experience," even for Hegel, does not lack all actuality; but essentially it serves for him only as a characteristic of the Absolute. To be sure, he recognizes that in experience the true must be present to perception, that in experience "man must be present."

In other words, he recognizes the significance of sense-perception. But immediately this sense-experience succumbs to sublation in the Absolute. Hegel recognizes the conditions of my finiteness, but for him this finiteness quickly loses itself in the Idea without any real differentiation; empirical thinking loses itself in the knowing of the Absolute Spirit. But in this explanation of finiteness, the question of the place of psychology in the system of the sciences is involved—a question to which Hegel was by no means indifferent. And here our minds turn to the critical thought-psychology of the present time. Experience as such constitutes its object. But it is called thought-psychology, not because it gives preference to thinking rather than to feeling or willing, but rather because a possible knowing-of-something, and a possible statement of that knowing, governs all experience, and thus governs sensation, emotion and will. This statement, however, means at the same time a knowing of myself. And thought-psychology is critical is so far as it establishes a basis for the fact of this knowing, or, to be more exact, leads back to the idea of the establishment of any basis at all. For this idea, being the idea of objectivity, is a fundamentally final one. It needs no basis itself, for it is its own basis; it signifies the meaning of every "is." For this very reason, however, critical thought-psychology fulfills itself in a theory of judgment. Within this theory the "is" develops as a relation to the "I," and the "I" develops as a conditioning of the "is"—a characteristic revival of the Hegelian formula of the identity of subject and object, except that critical thought-psychology avoids metaphysical conclusions. Here the object becomes a problem, but does not persist as a factor in a super-objective Absolute. On this basis, the analysis of critical thought-psychology establishes the function of the subject by means of the idea of the object but this function does not vanish into the fog of a metaphysical Spirit. Therefore, it does not recognize any Absolute Personalism as a factor of the theory of knowledge. The structure of psychology and its place in the system of the sciences becomes here a clearly outlined problem, which, in turn, has a decisive effect upon psychological re-

search itself. At the same time, it assures the problem of psycho-physics, and so of sense-experience, a well-defined place within this research.

Parallel to this, Being is not, for thought-psychology, the eternally persisting subject of an affirmation, or the subject which develops according to thesis, antithesis, and synthesis, but rather the infinite and methodologically graduated predicate of such an affirmation. Thus "dialectic" is native to thought-psychology also; not, however, as a barren schema of the self-development of the Spirit, but rather as the law of an experience correlative to an object. In accordance with this law, questions acquire their methodical structure with reference to the problem of experience; they are constructed into the unity of a system of knowledge which is in the most productive sense unfinished. Therefore, all research, especially, too, all experience, flows into this system, not as a sublated appendix to philosophy, but as an autonomous existant whose *raison d'être* scientific philosophy establishes, in order, in strictest consequence, to justify itself ever anew. And so, "the conceived reality" is the goal of critical thought-psychology also. It, too, circumscribes the constantly present problem-system of philosophy. Critical thought-psychology, in general, makes its decisions in connection with the motive of the present. This belongs to its very foundations. And it is right here that the Hegelian touch is to be seen. As Hegel put it, "The Idea is present, the Spirit, immortal, i.e., it is not past, and not future, but it is essentially now."

Hegelianism thus finds firm support in thought-psychology also, but only within the framework of a discussion, the real meaning of which results from the problem of the object. It reaches back behind Hegelianism, as it were. By reason of its doing this, it also removes itself from Hegelianism, and thereby qualifies the competencies of Hegelianism. It tests, by means of Hegel himself, the idea of a philosophical problem-history which points back to Hegel. This means, indeed, a denial of the logical and supra-historical Absolute of the system. Yet for this very reason it remains a significant orientation-point of philosophical inquiry.

Just as Hegel himself cannot be ignored, so the argument with him cannot be dismissed from the history and systematic of philosophy. "Concrete universality," as Hegel describes the function of the notion, is the object toward which most forms of Hegelianism fundamentally strive. With all their differences of structure, they show nevertheless uniform characteristics. Beyond the limits of tradition and language, they always tend in the direction of the universality of the whole system, in which everything that is in any way defined or in need of being defined is included. Always they point toward a critical discussion of the factors in which that universality has, since the beginning of time, expressed itself—knowledge, ethics, language, culture, state, art and faith.

In particular, however, Hegelianism, in our times also, consciously or unconsciously continues to carry on the never-to-be-lost tradition of logic—the tradition of Analysis. In close connection with scientific research,—even centuries before Hegel—Analysis prevented the mere universalizing of isolated characteristics, and so—again long before Hegel and free from the dubiousness of his philosophy of the Spirit—it evolved the problem of the notion and of method. Ever since Plato and the great philosophical system-makers of the 17th century, the real "concept" embraces the conditions for the definiteness of the concrete, and method is inquiry in accordance with the concept, and consequently, with the structure of the object. Under ever-recurring stimuli, scientific philosophy has concerned itself with these factors. Hegelianism, however, may count as one form of such consideration. Concept and method, too, especially in the sense of Analysis, remove the object from all isolation by viewing it as united with tasks which it has established. They thus fit it into a system which itself always remains a task. Only in view of this system is there any research at all, i.e., problems which are constructed with reference to others in the dynamic of experience. That these were considered by Hegel to be solved before they were posed, we know. But at important points the interests of Hegel and of the idea of Analysis,

which points toward thought-psychology, still have much in common.

It has been shown that the structure of the object was no problem for Hegelianism; but this is true only because Hegelianism considered this structure to be "overcome" in the concept of definiteness. But even Hegelianism was more than familiar with the fact that the object is a function of such definiteness, i.e., of thinking. And therefore, Hegelianism lives on in every critical inquiry into the structure of the object. The problem of psychology, however, belongs to this structure no less than do the problems of ethical activity, the growth of society as history, the work of art, and religion.

And so, Hegelianism, stripped of its inner confusions and contradictions, and methodically clarified, is, with all its inherent limitations, one of the classical forms of philosophy. For even these limitations everywhere condition problems. Hegelianism teaches that history is an eternal present, and conceives itself as embodying that present. A higher value, however, lies in sharing in that present in accordance with critical standards of measurement.

SELECTED BIBLIOGRAPHY

Calkins, Mary Whiton: The order of the Hegelian argument. *Mind,* 1903

Cassirer, Ernst: Das Erkenntnisproblem in der Philosophie und Wissenschaft der neueren Zeit. Dritter Band, 1923

Croce, Benedetto: Saggio sul Hegel, 2. Ed. 1913, English 1915 Filosofia dello spirito, English 1909, 1915, 1917

Durant, Will: Story of Philosophy, 1927

Encyclopaedia Americana: Hegel, Hegelian Philosophy

Encyclopaedia Britannica: Hegel, Hegelian Philosophy

Hoenigswald, Richard: Gedanken zur Philosophie Hegels, *Preuss. Jahrb.,* 1931. Geschichte der Erkenntnistheorie, 1933. Hegel und die Grundlagen der Denkpsychologie. *Alg. Nederlands Tijdschrift voor Wijsbegeerte en Psychologie,* Jrg 32. Nr. 3

Kroner, Richard: Von Kant bis Hegel, 1921-1924

Levy, Heinrich: Die Hegel-Renaissance in der deutschen Philosophie. *Kant-Gesellschaft,* Philos Vortraege, 1927

Marck, Siegfried: Die Dialektik in der Philosophie der Gegenwart 1929-1931

Muelder, Walter, and Sears, Laurence, The development of American Philosophy 1940

Muirhead, J. H.: How Hegel came to America. *Philos. Review* 1928

Royce, Josiah: Lectures on modern idealism, 1919

Ueberweg, Friedrich: Grundriss der Geschichte der Philosophie, Teil, 4, 1927 bearbeitet von T. K. Oesterreich

THE HUMANISM OF ST. THOMAS AQUINAS

By Jacques Maritain

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If I had wanted to speak to you of the *Humanism of the Middle Ages,* doubtless I should have chosen the 12th century as my theme. For never did medieval humanism appear in brighter, freer and more poetic colors than during that first Renaissance, the 12th century. But it is not as a historian, it is as a philosopher that I am to speak; and if we are to deal with, not the humanist culture of a century, but the humanist quality of a doctrine and of a thought, then truly it is in the doctrine of St. Thomas Aquinas that we must consider the characteristic quality of medieval humanism at its highest.

I need not apologize for the rather abstract and metaphysical way in which I have treated my theme. The great medieval centuries were themselves metaphysical centuries. Moreover, an invitation to a philosopher to open a discussion indicates a willingness to bear the consequences.

I

I am convinced that St. Thomas is, if we may use a word in favor today, the most *existential* of the philosophers. It is because he is par excellence a philosopher of existence that St. Thomas (St. Thomas, the "Angelic Doctor") is an incomparably human thinker, and that he is par excellence the philosopher of Christian humanism. What is human is, in fact, rooted in existence. The Middle Ages, while

understood more and more clearly that man is not an idea—man is not an idea but a person. Man subsists in the universe and before God; man is at the very heart of existence, and it is there that he is struck by all the darts of good and evil, and that action, the incomprehensible action of the Primal Being and other beings, reaches and upholds him, or else wounds him, and that he himself, within time, pursues the tenacious career of a creature raised out of nothingness and created for happiness. The metaphysical principle of medieval humanism could be formulated as follows: only He who Himself made existence can know *what there is within man.* Only thought centered on existence can in any way approach the inner recesses of the human heart, man's original grandeur and also his obscure depths, and attune itself to the aspirations of that strange image of God. "God is called zealous," said the pseudo-Dionysius, "because of His great love for everything that exists." St. Thomas often repeates that saying. It is because he himself has the zeal for existence that he has that faculty of reassuring, appeasing and strengthening with supreme serenity all that is truly human in us.

The great philosophical doctrines can be summarily divided into two groups. In the first group could be classed those philosophers who venerate the intellect and philosophy, but who limit themselves to considering essences, possibles and intelligibles, contemplated in the heavens of abstraction and cut off from effective existence. Those philosophers, Descartes, Malebranche, Leibnitz, Spinoza, and Hegel, are all more or less enchanted by the magic flute of Plato. They have a knowledge, not of the universe, but of a picture book. They leaf through the pages of that lovely book and think that they are touching reality. What an illusion! Reality, human life, the inner depths of man, these can be reached only by breaking through the book.

Annoyed by such impotence, the philosophers of the other group, the anti-Platonists, the great pessimists of the human will, or of the elemental life, Schopenhauer, Nietzsche, shatter at the same time the picture book, philosophy and

reason itself. But idealism torn to shreds is not realism, and it is not by ruining reason that one discovers human life and the inner depths of man—these are merely disfigured and mutilated. At the lowest point a Klages is heard savagely proclaiming war between life and the spirit, and finally there will be the declarations of unfortunate youths perverted by the new barbarism. I quote the young author, Ernst Junger: "The best answer to the betrayal of life by the spirit is the betrayal of the spirit by the spirit. And one of the greatest and cruellest pleasures of our time is to participate in this work of destruction."

I honestly believe that between these two groups of philosophers there is only St. Thomas who truly respects human life and the inner depths of man and reaches *existence* itself through the *intellect* itself. He has a highly classical conception of science; he is scrupulously attentive to the slightest demands, the finest rules and norms of logic, of reason and of the art of formulating ideas. And what he knows is not a picture book: it is that Heaven and Earth which contain more things than are dreamed of by builders of systems—it is that existing universe, resting on first data which must be acknowledged, not deduced, that universe swept by all the being-producing currents which vitalize and unify it.

II

I should like, in the three parts of this essay, to consider briefly certain typical examples of this *existentialism* and humanism of St. Thomas, first in the order of speculative knowledge, then in the order of practical knowledge, and finally in the order of the spiritual life.

In the order of speculative knowledge the first typical characteristic, which is immediately apparent from this vantage point, is the *realism* of St. Thomas.

Veritas sequitur esse rerum, he constantly affirms. Truth follows the existence of things, and is the adequation of the actual immanence of our thought with what exists

outside our thought. A spiritual superexistence by which, in a supreme vital act, I become the other, insofar as it is other, a superexistence which corresponds to the existence exercised or enjoyed by that other in the field of reality which properly belongs to it—this is in what true knowledge consists.

This knowledge is bathed in existence. Existence—the existence of things—is first given to us through the senses. The senses reach the object as actually existing, in so far as it exerts a real and existing action on our sensory organs. And that is why the paradigm of all true knowledge is the intuition of the thing which I see and which radiates toward me. The senses actually reach existence, without knowing that it is existence. They give it to the intellect as an intelligible treasure, which they themselves do not know as intelligible, but which the intellect does know and calls by its name—Being.

And the intellect, seizing upon the intelligibilities, which it extracts by its own strength from sensory experience, reaches, at the core of its own internal vitality, those natures or real essences which it has disengaged by abstraction from their material existence at a given point in space and time—but for what purpose? Solely to contemplate in its ideas the scheme of the essences? Surely not! But to restore them to existence through the act in which intellection is completed and consummated—that is to say, through judgment, which declares *ita est,* it is so. For example, when I say, "The sum of the angles of every Euclidian triangle is two right angles," or, "The earth revolves around the sun," what I am in fact saying is, "Every Euclidian triangle *exists* in mathematical existence as having the property in question. The earth *exists* in physical existence as having the motion in question." The function of judgment is an existential one.

The intelligibility on which judgment bears is more mysterious than that which is given us by ideas or notions; it is not expressed in a concept, but in the very act of affirming or denying—it is, if I may term it so, the super-

intelligibility of the very act of existing, either possibly or actually. And it is to this superintelligibility of existence that St. Thomas attaches the whole life of the intellect.

That is why he places at the root of metaphysical knowledge the intellectual intuition of that hidden reality which is concealed in the most common everyday word of our language, the word *to be,* and which reveals itself to us as an incomprehensible glory, when we are lucky enough one day to perceive in the most humble thing that act of existing which it exercises, that victorious thrust by which it triumphs over nothingness. For the realism of St. Thomas, the act of existing, whether considered in some wretched blade of grass, or in some weak flutter of hearts, is already the action and perfection of all form. Is it surprising that at the transcendental summit of all things, beyond the whole realm of beings, he beholds God as the infinite ocean of the act of being, subsisting through Himself, and for that very reason resplendent with all perfections?

Descartes and the whole of the rationalist philosophy which stems from the Cartesian revolution have posited an insurmountable enmity between the intellect and mystery. And there you have the deepest origin of the fundamental inhumanity of a civilization based on rationalism. At the heart of being, at the heart of existence, St. Thomas reconciles the intellect and mystery; and by so doing he frees our intellect, he restores it to its nature by restoring it to its object. But, at the same time, by so doing he appears as the most fundamentally human, the most truly humanistic of thinkers. He gives us the strength and the courage to accomplish our human task in the midst of strange nature and our own strangeness. By making peace between our minds and the mysterious universe, he also establishes peace between our minds and the mysterious Creator. Instead of separating philosophy from theology, as Descartes was to do, he places philosophy in continuity with theology, and rationally shapes the eminence of theological wisdom, which is, as he put it, the participation within us of the knowledge of those spirits who see God.

I shall mention briefly another typical characteristic of the speculative thought of St. Thomas, one that is narrowly linked to that realism of which I have just spoken, from the very fact that this thought is centered not on essences, but on existence, on that mysterious welling forth of the act of existing in which, according to the analogical diversity of the degrees of being, are actualized and formed all the qualities and all the natures which refract and multiply the transcendent unity of the actual subsistent Being in His created participations. From the very beginning, the thought of St. Thomas grasps being as superabounding. Everywhere being superabounds, it gives forth, and this is the *action* by which, here below, all beings are in intercommunication. In this we have one of the fundamental features of the Thomistic synthesis. Above time, in the primary and transcendent Source, it is the superabundance of the divine existence, a superabundance in pure act, which, as Revelation teaches us, is manifested in God Himself by the plurality of the divine Persons, and, as reason itself is quite apt to know, by the fact that the very existence of God is Intelligence, is Love, and that it is freely creative. Nor does that divine Fullness merely give: It actually gives Itself, and it is for the purpose of giving Itself to spirits capable of receiving It that, in the final analysis, It created the world. "It is not for Himself but for us," says St. Thomas, "that God created all things for His glory."

If then being is superabundant and self-communicating, if it gives itself, then love is justified—and with it that urge and that aspiration (to get out of one's self in order to live the very life of the loved one) which are consubstantial with the human being, and which scandalize all the philosophers of pure essences. For a Spinoza, the peak of wisdom and of human perfection is to love God intellectually, in other words, to consent as a mere disinterested spectator to the universal order of things, without asking to be loved in return, because the God of Spinoza is not a creative Person capable of loving freely and of giving Himself freely; He is naught but a subsisting essence, and all things

are the expression and, as it were, the unfolding of the attributes and modes of this essence. But for St. Thomas Aquinas, the peak of wisdom and of human perfection is to love God *lovingly* in a communion of love, in other words, freely to lay oneself open to the fullness of love of the living God descending into us, and overflowing from us to make us continue His work in time, and communicate His goodness.

The rationalist philosophers all inevitably posit a fatal divorce between knowledge and love. Thomistic existentialism brings them into agreement and unity, bases love upon intelligence, and strengthens intelligence by love—at the same time showing us that love can be a beneficent and pacifying stream only if it passes through the lake of the Word. And by this trait Thomistic thought again appears as a thought profoundly human and truly humanistic, which not only emancipates the intellect, but reconciles it with the heart and reconciles us with ourselves.

Once we have understood this primacy of *existence* in the thought of St. Thomas, we can also understand the power of synthesis it manifests to such a high degree towards the whole inheritance of human and divine wisdom, as well as its capacity for welcoming all truths, the humblest and the greatest, which the searchings and systems of men so often hold prisoners of error, and which must be brought home to their native habitat. Such a power of synthesis and of welcome requires a very high degree of originality and an exceptional poetic energy. It is this intuition of being, the very simple and infinitely fertile apperception of existence—perfection of perfections and unification of what is multiple in all the degrees of its analogical values—which is the secret of St. Thomas, and which gave to the great mute ox of Sicily the strength to integrate all the truths uttered by pagan philosophers, by Aristotle and his dazzling clique of Jews and Arabs, as well as by the Church Fathers, and by St. Augustine with his Platonism transfigured by the wisdom of grace, to blend all those precious voices under the one Word, superior to all philosophy and

to all theology, and which is transmitted to us by the Gospel. And here again is the lesson in humanism that we owe to St. Thomas. He venerated antiquity so intelligently that, at every step, he opened up new vistas, brought everywhere the freshness of the childlike spirit, and was, without meaning to be, the greatest instigator of newness ever known to the medieval schools.

But the power of synthesis I have just mentioned must be thought of in a much deeper sense. It is in Man that the spirit and doctrine of St. Thomas tend to create unity, and always by virtue of the same secret, which consists in understanding everything in the light and generosity of existence. Nature and grace, faith and reason, supernatural virtues and natural ones, science and wisdom, speculative energies and practical ones, the world of metaphysics and that of ethics, the world of knowledge and that of art: to every constellation of our human sky St. Thomas diligently assigns its proper domain and its particular rights, but he does not separate them; he distinguishes between them in order to unite them, and makes all our forces converge into a synergy which saves and stimulates our being.

The principles of St. Thomas particularly make it possible to understand how, at the immaterial focus of the soul's energies, mystical wisdom and theological wisdom vitalize and strengthen metaphysical wisdom, just as metaphysical wisdom vitalizes and strengthens the philosophical activities of lesser rank. Here arises the question of Christian philosophy. I shall not take it up in this paper. I shall merely note that St. Thomas, without explicitly treating this question, held a very clear position on the subject. He affirmed this position not only by his principles, but by his action—by strife and suffering. For his struggle consisted wholly in bringing about the recognition of Aristotle and the overthrow of Averroes; in other words, this meant bringing about, at the same time, the recognition of the autonomy of philosophy, like that of natural law and of the temporal community, and the subordination of philosophy to faith

and of natural law and the temporal community to the law of grace and the kingdom of God. If today there are Thomistic philosophers who can be scandalized by the idea of a Christian philosophy, it simply proves that one can quote a master's formulae without knowing of what spirit one is, and that Thomism like any great doctrine can be dissected like a cadaver by teachers of anatomy instead of being taught by philosophers. Many attempts at humanism, generous in themselves, even at Christian humanism, like the attempt of Erasmus and his friends, failed because they did not take their origin high enough. For we believe that only one form of humanism can descend deep enough into the inner recesses of the human being, the humanism which stems from the wisdom of the saints while ensuring and integrally respecting the order and dignity of nature. It is here that resides, to my mind, the privileged position of St. Thomas: in his theology, in his epistemology, and in his ethics.

III

And so I come to the second part of this paper, that which concerns practical knowledge. In the realm of practical knowledge and moral life, what I should like to recall first of all is the classic doctrine of St. Thomas on the perfection of human life and on charity. He teaches that it is in the love of charity that perfection consists, and that everyone is expected to strive for the perfection of love according to his ability and his particular condition of life. This is not a counsel; it is a precept. The existentialism I have pointed out is found here in a really typical form; for love, as St. Thomas says, does not go out to possibilities or to pure essences: it goes out to existing realities. It is because God is the supreme and super-abundant act of existing, that the perfect love of God is the supreme perfection of our being.

To say that the perfection of human life consists in love is to say that this perfection consists in a relationship

among persons and primarily between the person of man and that of God. Henceforth this is essential—the ever-increasing fullness and sensitiveness of union among persons, until that transfiguration is reached which, as St. John of the Cross says, makes of man a God by participation. Thus, when the ramifications of Thomistic philosophy are followed in the behaviour of the great mystics, it appears that the perfection of human life is a perfection of the art of loving, and not of the art of perfecting ourselves and of being sufficient unto ourselves in our intelligence, our strength or our virtue. When we consider the practical attitude of the men of the Middle Ages in the spiritual domain, we see that for them the perfection of the Gospel was not the perfection of a spiritual athlete, by which a man would make himself spotless, but the perfection of love, of that love for Another Whom the soul loves more than itself, and Whom it is essential for the soul to love still more and to rejoin, even if it is carrying imperfections and failings—which He takes upon Himself to remove. Who can fail to see the profound humanity of such superhuman detachment from perfection within perfection itself?

Such then is St. Thomas' conception of the "meaning of human life." We are here at the very heart of his humanism, and we see how this humanism is an integral whole, and at the same time how, in a very particular way, it answers an urgent need of our times. For the typical significance of Thomism, from the point of view of the philosophy of culture, is that it shows the inherent consistency, value and dignity of nature—subject to grace "of which a single benefit outweighs all the benefits of the universe," and proceeding from the holy superabundance of the subsistent Being Himself. Let us say that the significance of Thomism is that it *dignifies* and rehabilitates the creature in God and for God; and that dignifying and theocentric rehabilitation of the creature, and particularly of the human being, is, I am sure, precisely what our civilization requires if it is to be restored. The human person and human life should be truly and deeply respected *in* their affinity with God, and

because they derive from Him; created things, and the efforts and labor of the secular community, should not be despised—nor again worshipped, or ruined by the enslaving mania for domination of man over man. This *rehabilitation of human life in God* appears to me characteristic of a new era of Christianity, and of a new humanism essentially different from the humanism of the Renaissance, or from that of the classical period. It is theocentric humanism, rooted where man has roots, a humanism which might be called the humanism of the Incarnation and of which St. Thomas Aquinas appears to me to be the propounder. "To be human," he said, "is to have for man a feeling of love and pity." (II-II, 80, 1, ad 2.)

To gain a fuller idea of the humanism of St. Thomas Aquinas, it would be necessary to mention many more significant points in his doctrine: he not only teaches that grace does not destroy nature, but perfects it, he teaches also that every being—including inanimate objects, with their ontological aspiration — loves God above all. He teaches that in order to kill egotistical self-love, the root of all evil, we must love ourselves, our body and our soul with the love of charity. He also teaches that without charity there is no perfect virtue, and that nevertheless the virtues of the heathens, described by the Jansenists as resplendent vices, are real though imperfect virtues of a natural order, and that supernatural virtues do not replace natural virtues, but strengthen and superelevate them. He teaches that what matters most in the New Law—which is not a written law, but mainly one infused into the heart—is the grace of the Holy Spirit, given by living faith. That is in what *the whole power* of the New Law consists; without that, it has no efficacy, it is but an empty image. This is equivalent to saying that authentic Christianity is an *existential* Christianity, in which evangelical love and the interior grace of the Holy Spirit are most important.

The humanism of St. Thomas rehabilitates the life of the secular community, the social and political order, and progress. To avoid further elaboration, I shall merely make

the following remarks: St. Thomas believed that our nature is wounded, that the world will never become the kingdom of God; but he also believed that the goal of temporal society is a good and upright earthly life of the community, and that throughout all the vicissitudes of history and the failures of men we must strive for a temporal regime worthy of human dignity. Moreover, he taught that, while social and political realities of themselves belong to the natural order, they concern nevertheless the moral more than the physical realm; they can reach their fulfillment only if they are helped and superelevated within their own order by the energies of grace, so that a temporal civilization (I do not mean one without fault or blemish, but one really worthy of man) must be called by its real name—a Christendom. Thus the position of St. Thomas is just as far removed from the pessimism of Hobbes as from the optimism of Rousseau. His is an integralist and progressive position. Obviously, the social problems we deal with today did not exist in his own day. But he has established principles showing plainly the direction of his thought. He teaches that a minimum amount of security is needed for man to cultivate virtue, so that the question of public morality is primarily a question of work and of bread. He teaches that the ownership of goods and of means of production must be private as to management, but common as to "use." He insists on the dignity of the human person, the image of God, and sees in the common good of a civil society an essentially human good. He characterizes political leaders of any regime as trustees of an authority, the source of which is God, and at the same time as vicars of the multitude. He affirms that the consent of the people is requisite to the legitimacy of a regime, whether of the monarchic type or of any other type. This consent is an integral part of the dynamism of political life; and a government truly political, in contrast with a despotic government, is a government of free men treated not as children, but as adults. In general, we can say that St. Thomas Aquinas draws a broad outline of a true social

and political humanism, the application of which depends upon the particular circumstances of each historic era.

IV

At last I come to the third part of this paper, in which I would like to show the humanism of St. Thomas as it appears in the actual realm of spiritual life. Frankly, when one considers all the endeavors outside the Judeo-Christian tradition, this realm appears also as one of the great failures and one of the supreme antinomies of our being. The great civilizations of antiquity, that of Greece and above all that of India, contended that contemplative life is superior to active life. But, because they conceived of supreme contemplation as a benefit to be acquired by the highest straining of man's energies, and because they placed everything in the intellect, this contemplation was limited to a small number of privileged beings in whom alone and for whom alone the human race existed, and for whom the enslaved multitudes had to toil. The modern world has proclaimed the emancipation of those multitudes and their right to a share of the goods by which human life is rendered perfect; and in doing so the modern world is right. But it scarcely knows where those goods lie; it ignores as though by principle the whole realm of supreme immanent and contemplative activities by which, at the summit of the intellect and of the will, human life bears its fruit. In brief, it prefers technique to wisdom, and seeks blessedness in science and work—and we are beginning to perceive today how disappointing this is. This reminds me of Montaigne's thought: "Although we may be learned with the learning of others," he used to say, "at least we can only be wise with our own wisdom."

The solution offered by St. Thomas Aquinas is a typically Christian solution and can be briefly summarized as follows: Yes, Aristotle and old wisdom were right in declaring that contemplative life is superior to active life: it alone throws open to man the portals of divine life. But when they spoke thus, the wise men of antiquity, like certain prophets and poets, spoke better than they thought and did not

know what they were saying. The Gospels give true meaning to the formulae of Aristotle. The contemplation of the philosophers stops in the intellect and is achieved by the sole effort of the highest energies of man. The contemplation of the saints does not stop in the intellect, but passes on into the heart. It is achieved not by the supreme straining of the natural energies of man, but by the love of charity, making us one spirit with God and becoming, under the superior inspiration of His gifts, the means of a supreme experiential knowledge. This knowledge does not aim at the personal welfare of the wise man or at his perfect self-sufficiency, but at the love of Him Who is contemplated, at the communication of love and the cooperation of love with God Whose beatitude, beauty and work of goodness and salvation are more important than the personal perfection and personal work of the sage.

Such is, within the Thomistic perspective, the end to which spiritual life tends here below. It shows that this spiritual life and the fruits of human perfection are not reserved for an aristocracy of privileged beings.

The tremendous revolution thus accomplished by Christianity, insofar as Christianity summons all men to perfection, was essentially and above all a spiritual revolution effected by the grace of God. We must say that this spiritual revolution yielded also great truths in the natural order; it was also to effect, gradually and indirectly, great changes in the temporal order. It was, namely, to eliminate first from conscience and then from existence the necessity for slavery; to bring about the recognition of the fundamental equality of all men in their dignity, as rational creatures endowed with the same primary rights; and to promote a proportionately increasing equality in the common enjoyment of the benefits accruing to each human person from the treasury of the community. "All men born of Adam," writes St. Thomas, "can be considered as one single man, insofar as they share in one single nature received from their first father" (*Sum. Theol. I-II,* 81, 1). The great revelation of the Gospel taught humankind the fact that there are

not two kinds of men, those made for labor, and those made for wisdom, but that every man is both *homo faber* and *homo sapiens,* and that he is *homo faber* in order to be *homo sapiens,* a man made for labor in order to be a man made for wisdom, a man made for labor so as to find happiness and the meaning of his life not in labor, but in wisdom and in the freedom of expansion to which his spiritual nature aspires.

And here we come once more to the integral humanism of St. Thomas. The antinomy pointed out earlier in connection with man's aspirations to spiritual life is surmounted, if it is true that, as St. Thomas teaches, contemplation (contemplation by union of love) is superior to action though required to superabound in action; it is no longer reserved to a class of specialists and privileged beings, but is available to all men without exception who hear the call of God. And this is true not only on the superior plane of spiritual life in its supreme achievement, which is closely linked with grace and the kingdom of God; it is true also on the plane of temporal life and of the worldly civilization. The humanism of which we are speaking holds as an essential truth the fact that the purpose of man's labor is to give him access to the interior benefits of the soul, that is, to activities of leisure or rest. If it is true that some day—at least when a great moral transformation, beginning perhaps today in horror and in blood, will have taught us to make use of technical advances for the good of man, and not for a bestial regression to the worst forms of domination—if some day technical progress will permit the masses to earn through daily labor of relatively short duration the material goods they need, then, to quote Mr. Bergson, the mechanical will summon up the mystical, and it will become obvious that labor, which produces economic values, is by nature directed toward the activities of free development and of fruition.

It can be readily seen also that the common good of a temporal community is valuable chiefly for the access it gives human beings to the inner riches and freedom, which

dignify them. It is evident also that the common work of a temporal community does not have as its main object some material and outward activity, whether it tend to control nature through industrial power, or to control other nations through political power, but aims at those immaterial activities of which I have just spoken, and which are primarily translated in the social domain by an heroic effort towards the creation of a regime of justice and civil amity, of freedom and brotherly cooperation.

These implications and requirements of an integral humanism descending from the spiritual plane to the social-temporal plane, find their rational justification in the doctrine of St. Thomas Aquinas. At the same time St. Thomas' conception of human nature leaves no illusions as to what such an ideal requires in terms of progressive energy and patience over a long period of generations. In terms of St. Thomas' humanism, it may seem that we are still in the first stages of Christianity from the point of view of social-temporal accomplishments.

I shall close by pointing out that, after the example of his Master, St. Thomas Aquinas received a visible homage of men only on a brief Palm Sunday. He wielded hardly any influence on the temporal structures of his age. However great his glory, however strong his influence in the Church, his work did not *succeed* at his time in affecting the course of history. He showed to his period a supra-temporal pattern which the Middle Ages did not know how to use; he lived at a critical time, when the high culture of the Middle Ages was casting its last rays. When he passed away, the radiant dissolution of medieval civilization was already in progress. His theocentric humanism was too much for his time. But it is permissible to think of St. Thomas as a prophetic saint, reserved for the future; in fact, it is up to men of today to avail themselves of his wisdom for the aims of culture and of his humanism for the aims of community life.

However, the time for this has not yet come. A torrent of blood, a veil of sorrow, indescribable humiliation,

wretchedness and cruelty stand in our way. It seems that our eyes have witnessed too many unpunished crimes, too many deaths in despair to see, save as a mere hope, the arrival of a new Christendom. The liquidation of four or five centuries of history cannot take place in a single day. But let us hope at least that, when the period of darkness, of which God alone knows the extent, is over and when the necessary change of spirit, of which God alone knows the depth, has taken place, there will come a new Christian era of culture, an age of integral humanism. And I, for my part, sincerely believe that the thought of St. Thomas Aquinas will be the soul of that era, just as the thought of St. Augustine was the soul of medieval Christendom. It is an amazing spectacle to behold countless Christians wellnigh asleep, while the world is facing death and suffering the agonies of pain. To those who are on the verge of losing heart at the sight of such events, St. Thomas brings a supreme lesson in humanism by showing, in his doctrine and by his own example, that there is no despair of man, once our entire hope is placed in God.

SELECTED BIBLIOGRAPHY

Aquinas, Thomas: Summa Theologica
Aquinas, Thomas: Summa contra Gentiles
Aquinas, Thomas: De Regimine Principum
Aquinas, Thomas: Commentary on Aristotle's Politics and Ethics
Farrell, Walter: A Companion to the Summa, 1941
Gilson, Etienne: God and Philosophy, 1941
Gilson, Etienne: The Spirit of Mediaeval Philosophy, 1936
Gilson, Etienne: The Unity of Philosophical Experience, 1937
Maritain, Jacques: The Degrees of Knowledge, 1937
Maritain, Jacques: Ransoming the Time, 1941
Maritain, Jacques: Scholasticism and Politics, 1940
Maritain, Jacques: True Humanism, 1939
Parsons, Wilfrid: Which Way Democracy? 1939
Vann, Gerald: Morals Maketh Man, 1938

TRANSCENDENTAL ABSOLUTISM

By George Santayana

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By George Santayana

If there was insight in Royce's saying that I separated essence from existence, there was not absolute accuracy. I do not *separate* the two, I merely distinguish them. It is axiomatic that a thing can have no existence if it has no character: only things with *some* character can exist. Yet existence involves change or the danger of change: things may be transformed, or in other words they may drop one essence and pick up another. The lost essences then seem to be actually separated from existence, like dead leaves from a tree; but this too is not accurate. We may separate things that lie on the same plane, as England and France are separated by the Channel. Perhaps they were once continuous, and a change in the sea level might make them continuous again. But nothing can ever make existence and essence continuous, as nothing can ever make architecture continuous with music: like parallels such orders of being can never flow into one another. But they may be conjoined or superposed; they may be simultaneous dimensions of the same world. A changing world is defined at each moment or in each movement by the essence of that moment or of that movement; and when it drops that pattern or that trope, the essence then dismissed remains, in its logical identity, precisely the essence that it was during that manifestation and before it. Were it not the same essence throughout, *it* could not be picked up or dropped, recognised, or contrasted with the forms that existence might wear earlier or later. The eternal self-identity of every essence is therefore a condition for the possibility of change; and complete as the realm of essence is in its ideal infinity, and unaffected there by

the evolution of things, yet it is intimately interwoven, by its very eternity, with this perpetual mutation. Allowing matter a dynamic priority (matter and not essence being the seat and principle of genesis) we might describe in a myth the temporal discovery of eternity. Becoming, we might say, in the fierce struggle to generate he knew not what, begat Difference; and Difference, once born, astonished its parent by growing into a great swarm of Differences, until it exhibited all possible Differences; that is to say, until it exhibited the whole realm of essence. Up to that time Becoming, who was a brisk bold lusty Daemon, had thought himself the cock of the walk; but now, painful as it was for him to see any truth whatever, he couldn't help suspecting that he lived and moved only through ignorance, not being able to maintain the limitations of any moment nor to escape the limitations of the next, like a dancing Dervish that must lift one foot and then the other from the burning coals.

It is by its very ideality, non-existence, and eternity, then, that essence is inwardly linked with existence, not by being an extension or a portion of that which exists. This seems to me so simple and clear that I hardly know what to say to those who find it unintelligible. Is it perhaps *too* simple and clear, and are people led astray by expecting something more pretentious and difficult? Remembering and resenting imposture, do they then assume that I am wickedly inventing a metaphysical realm of essence to take the place of the natural world and of real life? This was the misunderstanding into which William James was led by my *Interpretations of Poetry and Religion* and into which the mere word essence has led many readers since. For instance, in the first volume of this series,[1] Professor Savery, in a remarkably fair and penetrating essay on Dewey observes incidentally that I call myself a materialist but am something else, since *I believe in eternal essences.* The word "believe" is unfortunate here, though natural enough in the colloquial sense in which some worthy reformer of hygiene might believe in

fresh air and one apple a day. The diet would be thin but disinfecting, and for that ascetic purpose I certainly believe in essences. Technically, however, to believe in anything means to believe that it exists; whereas an essence is what anything turns into in our eyes when we do not believe in it. We do not cease to conceive that which we explicitly deny, and for us then this conceived but denied thing is an essence; so that if my critics, when they deny essences, clearly conceived what they are denying, they would have admitted all that I assert. An essence is anything definite capable of appearing or being thought of; the existence of something possessing that essence is an ulterior question irrelevant to logic and to aesthetics. Misunderstanding is therefore redoubled if you say that I believe in *eternal* essences; because the reader, if not the writer, is likely to take "eternal essences" to mean everlasting substances; whereby my doctrine is blown sky-high into the Platonic heaven of magnetic forces, intelligences, or deities, astrologically guiding the fortunes of men and of nations. I am thus turned into a friend of outworn superstitions, when I am no friend even of the superstitions that prevail today.

An insidious remnant of such Platonic mythology adheres to the notion of essences when these are said to *subsist.* Subsistence means latent duration, and duration means steady persistence in time; but the eternity intrinsic to all essences is timeless. The same essence may therefore recur any number of times; and when this happens, or when some essence is exemplified continuously, as the laws of nature or morals are supposed to be exemplified in our world, we may say that these essences subsist: not, however, by virtue of their own timeless eternity, but by virtue of a certain alleged constancy in things, that keeps those essences in office for the time being. The rules of chess, for instance subsist in that chess-players continue to observe them. If the game were obsolete, the rules would have subsided into merely possible rules or essences; and all that would then subsist in regard to them would be the truth that they had

once been established and obeyed. Truth may be said to subsist because even when the facts concerned are past or future, they lend to the essences manifest in them an eternal relevance to existence: for let existence change as fast and as radically as it will, it cannot expunge either its past or its future.

While more important than chess in the economy of nature, mathematics, logic, and all laws formulated by the sciences are not essentially in a different case. Matter or mind may have adopted these rules and may continue to observe them: but their prevalence is contingent, and they are essentially necessary only to themselves, in the realm of essence. In nature they are, at best, only factually dominant.

I should say, then, that subsistence is something proper to matter and to the phases of matter, astronomical, anthropological, or social. It is not proper to essence. To make any essence properly *subsist,* to give it a lasting empire over events, is ideolatry. Thus mathematical terms and the laws of nature are often taken for forces controlling the world, or imposing their material truth upon all mind. But no essence imposes itself on the mind unless the mind is led by material circumstances to think of it; even the intrinsic relations of a given essence to other essences are never noticed until a vital impulse leads the mind to perceive those implications: else all mathematics would be familiar to everybody. And no essence imposes itself on nature, unless nature falls of its own accord into that special shape. That whatever has always been the way of the world must always continue to be so is a merely empirical presumption; and in the measure in which it is verified, it reports the inertia of matter, not the self-identity of essences or the power of any of them over things.

Ideolatry is also common in morals, when certain precepts are felt to coerce the conscience by their intrinsic authority, without any vital or rational backing. Categorical imperatives, such as *"Do what is right"* or *Fiat justitia* are indeed coercive because they are tautologies; but the con-

crete action called right or just in any instance cannot justify its title except by concrete considerations. The clear discrimination of essence blasts all these superstitions.

A subtler misunderstanding clings to the status of essences when they appear in intuition. Whenever a new essence is seen or conceived, an event has occurred: there is a fresh natural moment in the natural world. But is that which has come into existence the given essence itself? Appearance is an ambiguous term. It may mean a false appearance, contrasted with a true one, or it may mean any positive presence. The green after-image of a red stamp is a false appearance, since no green stamp exists; yet the optical illusion by which a green stamp appears is an illusion that occurs, and in that psychological sense is perfectly real. It has a biographical status, being part of the experience of a physically extant person, with physiological causes in that person; but the green stamp itself has no physical status, such as the red stamp has. Thus givenness does not confer existence on that which is given. Whenever a perception or an illustion arises that which comes into existence is not the datum but the perception or illusion itself. We are in the realm of spirit.

The spirituality of spirit and the ideality of data follow directly from materialism; and I think that it was by convinced materialists, by men thoroughly disillusioned about the course of nature and the decrees of fate, as the Indians were disillusioned, that the true quality of spirit was first discerned. For a materialist the mind will be simply sensibility in bodies; things that stimulate that sensibility will be the inevitable objects of pursuit, attention, and passion; but how should the feelings thereby aroused in the organism present the *intrinsic* character of the surrounding things? Evidently they will transcribe only the effects of those things on the organism; and this in aesthetic, moral, or verbal terms, not in the diffused and complicated form of the physical processes concerned. Mind , for a materialist, will therefore seem necessarily poetical, and data fictions of sense. If you are a materialist

in respect to matter you will be an idealist in respect to mind. Commonly materialists no doubt ignore mind altogether; they are seldom competent philosophers, and when they are they may express the quite special quality of mind perhaps in some disparaging way, by calling it illusion as the Indians did, or appearance with Parmenides, or convention with Democritus. Attaching myself to this ancient tradition, without neglecting more modern spokesmen of the spirit, I call it intuition, and note that it possesses qualities that render it necessarily original in respect to the physical world. Matter is in flux; spirit, while existentially carried along in that movement, arrests some datum, lending it an ideal unity, fixity, and moral colour such as neither the organ of sensation nor the stimulus can possess in themselves. We are, in the texture of our impressions, in the realm of essence; and it is only in the language of essence that spirit can describe its fortunes. It is a poet, a singer, a sufferer, it is memory and imagination, living in a pedestrian world that cannot suffer or sing.

1. *The Philosophy of John Dewey*, 512.

SELECTED BIBLIOGRAPHY

Santayana, George: Platonism and the Spiritual Life, 1927
Santayana, George: The Realm of Essence, 1927
Santayana, George: The Realm of Matter, 1930
Santayana, George: The Realm of Truth, 1938
Santayana, George: The Realm of Spirit, 1940
Santayana, George: Scepticism and Animal Faith, 1923
Schilpp, P. A.: The Philosophy of George Santayana (The Library of Living Philosophies, vol. 2), 1942
Hoor, M. T.: George Santayana's Theory of Knowledge, J. of Philos. XX, pp. 197-211

PERSONALISM

By Ralph T. Flewelling

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IT HAS BEEN quite the custom among American Personalists to assume that Personalism is a distinctly and original American development in philosophy. Except in a superficial way, nothing could be farther from the truth. It is a fact, so far as the name is concerned, that American philosophy could lay some claim to the first use of this title in a distinctive way but even this is disputable. Walt Whitman coined and following him Bronson Alcott thus named his brand of theism as early perhaps as 1863. The term had already been used rather casually by the German Schleiermacher, and Jacobi had been called a Personalist by Goethe. Four issues of a journal by that name were issued in Germany. The title was formerly adopted as the designation of a philosophic system by Renouvier, the French philosopher and teacher of William James at least by 1903, by Mary Whiton Calkins in 1906, and by Borden Parker Bowne in 1908.[1]

If we have a mind to doctrines and philosophic meanings we shall discover personalistic assumptions as early as the beginnings of philosophy and a fairly complete modern development both in German and French thought for a full century and a half. In so long a line of growth we should expect many diverse improvisations on the main theme, and inasmuch as every philosopher hopes to present some new variation and to attach to it his own special title, we should be prepared for an astounding number of names for systems that in essential features agree.

Thus the personalistic system has at various times been designated as Voluntarism, the Philosophy of Freedom, of Effort, of Probability, of Contingency, of Continuity, of

Idées Forces, of Change, Spiritual Realism, Transcendental Empiricism, Personal Idealism, Humanism, Vitalism, Activism, Personal Realism, and Personalism. Personalism seems destined to become the most popular of these terms and to be used for the various types.

There are in general two distinct tendencies shown in the thinkers of this school according to whether their interests rest primarily with epistemology, the theory of thought, or with metaphysics, the theory of reality. The latter group may be said to be the more thorough-going personalists because a theory of thought implies and cannot avoid certain metaphysical assumptions, such as the intelligible nature of the world.

A distinctive characteristic of personalistic thought is to be found in its theistic standpoint as opposed both to pantheism and to deism. It holds that all reality is in some sense personal; that there are only persons and what they create; that personality is self-conscious and self-directive both in finite individuals and in a supreme creative Intelligence which is the world-ground and source of all reality.

In this way Personalism bases its theory of knowledge, for since the world of things springs from an intelligent source it must of necessity be intelligible to all normal minds and human perceptions are true.

Logically it is pragmatic and holds that life is more important and more convincing than any verbal form of expression, that reality is forever bursting the bonds of fixed meanings or verbal pronouncements. Ethically it holds to the way of freedom, maintaining that without freedom there can be no moral character. Since it looks on moral characte- as the supreme creative achievement it assumes the risk of evil and error to be justified by the outcome in moral character and freedom.

The cosmic order, being personal is also ethical and the moral mandates are written into the nature of things. The moral laws are held to be as inexorable in their outworking as any other laws of nature. They cannot be abrogated nor

evaded and can be escaped only in the sense of moral *re*-creation on the part of the person, in the same sense that a lower law of nature may be overcome by resort to a higher, as for instance when by means of the siphon the pressure of the atmosphere causes water "to run up hill."

Values are thus given a standing in the nature of things as certain and as direct as that of natural or physical phenomena.

Aesthetically, Personalism maintains the cosmic and personal character of the forms of beauty to which normal personality can respond and in which it can find pleasure and self-expression because of an inherent harmony between persons and things. Bergson has expressed this view in an essay quoted in the introduction to a re-publication of Ravaisson's *L'Habitude.* "The whole philosophy of M. Ravaisson . . . derives from the idea that art is a metaphysical form, that metaphysics is a reflection on art, and that it is this same intuition, diversely used which makes the profound philosopher and the great artist."[2]

Religiously, Personalism is theistic, holding that the person can reach highest self-expression only in finding fullest harmony with the nature of things. This completest self-realization can come only by the subjugation of abnormal, selfish, and individualistic interests, or in the sublimation of all interests to the highest and supreme values of life. Ravaisson, the French personalist, expressed this in the phrase "to simplify one's self."

Since Personalism has been know as the philosophy of freedom it has at various points of its development taken on certain social and political aspects which should also be mentioned. To Personalism, personality is the supreme value. Society then should be so organized as to present every person the best possible opportunity for self-development, physically, mentally, and spiritually since the person is the supreme essence of democracy and hostile to totalitarianisms of every sort.

Psychologically, Personalism opposes all mechanistic and behavioristic assumptions with its doctrine of freedom. The

person is held to be creative and most real in his creativity. There is then a point which external influences can not altogether determine and which provides for that element of novelty and originality in human affairs which is a fact inexplicable by any mechanical theory.

Scientifically, Personalism is in strictest accord with the newest development of science as it breaks with the mechanistic materialistic theory now so completely abrogated by scientific leaders. It looks upon evolution, not as the mechanical result of the action of outside forces but as a true *e*-volution, a development from within, of a teleological or purposive nature of which human intelligence and moral achievement are so far the highest expressions known to us. This inner functioning of cell and atom toward an evolutionary end, it holds, is not an argument for denial of the existence of a Supreme Creative Purpose or God but the best sustaining natural evidence for that existence.

The existence of this Supreme Creative Intelligence is called for in the creative process, since that process implies duration and a permanence in purposive effort. Thus the Supreme Intelligence or force must be not only immanent in atom, cell, and process but also must transcend its creation. But immanence and transcendence are found only in what we call a person, that is, a self-referring subject of experience that does not pass with its experiences. Since the creative power itself partakes in this double role it must be held to be in the highest and truest sense personal—the supreme creative Reality. In this highest sense then personality is of the very essence of being, the supremely real.

It cannot of course be maintained that all personalists would subscribe to all parts of this credo, but each point mentioned has been held by some personalist and this statement may provide a touchstone from which to evaluate individual deviations and differences.

Actually some type of personalistic thought appears in connection with every system of theism. Frequently personalistic assumptions are concealed under the terms Absolute

and Infinite. That is, these terms in strict meaning imply that which is unconditioned, unlimited and unrelated. Practically many absolutists speak of the Absolute as if it were a person. There seems an inherent tendency in human thought to personify every individual thing or object sensate or insensate. This is called the anthropomorphizing tendency and it is practiced in our scientific imagination, our concept of natural law as surely as it is in our philosophy and our theology.

The trend toward naming the qualities of personality as the ultimate reality began at least as early as Heraclitus (536-470 B.C.) who affirmed mind as the fundamentally real because it alone had the power to differentiate itself from the objective world and from its own experiences. To him "man's own character is his daemon" (Frag. 119), and he asserts the Logos to be the enduring principle of permanence in a world of change.

These personalistic elements appear also in the cosmogony of Anaxagoras (500-430 B.C.) who gave philosophy an anthropocentric trend by affirming that mind is the foundation of existence, the force which arranges and guides (Fr. 12). To Protagoras (480-410 B.C.) this differentiating capacity became the basis of all knowledge and science and was expressed in the famous dictum "Man is the measure of all things: of things that are, that they are; of things that are not, that they are not."

The resurgence of personalistic ideas in the history of western thought has been rather significantly connected with certain historical crises. These crises have borne recurring similarities. It is as if man is forever bending himself upon the building of well-defined governmental, social, institutional, intellectual or religious systems in his efforts after stability and progress. As these outer structures have proved illusory or have failed to achieve expected results he has each time been driven back upon his own personal resources. He has from time to time been called upon to take account of human nature itself and of those values which are perennial because they are a common function of personality.

Such an age faced Socrates. The skepticism and relativism to which the Sophists had given wide circulation and credence promised the destruction of the moral order itself. His discovery and conviction was of the cosmic and personal nature of moral value. It was cosmic in the sense that the moral order was seen as a part of the nature of things, and that it was witnessed by an inner light which illuminated every soul. It was personal in that it was the duty and privilege of every man through his own personality to arrive directly at the truth without the intervention of priest, potentate or institution. The moral stimulus of the Socratic conviction saved the wreckage of the Greek culture by enabling it to pass into the heritage of Rome through the development and progress of Stoicism. At the same time it had a modifying and restraining influence on the Epicurean and other schools of thought. It formed the background of the tradition of justice behind Roman law and the doctrine that every person was entitled to unprejudiced treatment in the courts.

When the Roman Empire was breaking up it appeared again that the institutions through which men had hoped for centuries to establish a world order were about to dissolve and carry with them the great amenities of civilization. At that juncture Augustine was led to seek within the unfailing sources of order and life. These he found in the indubitable truth which is revealed in and to each personality. The legal and external bulwarks which the Empire had built might fall but this only disclosed to him that inner nature of man which could build an even stronger structure of society on the foundation of the moral and spiritual convictions of the person. Out of the strength of this inner conviction he drew the conception of *The City of God.* This concept of Augustine became the leading light of the so-called Dark Ages. In conjunction with Boethius' doctrine of personality as the supreme value we find these ideas sufficiently commanding and uniting to turn back the tides of Moslem invasion, to subdue tribal and nationalistic tendencies to a

common order of thought and action, and to inaugurate the democratic movements which resulted in the rise of democracy, the building of the universities and which found aesthetic expression in the Gothic architecture. The movement toward Personalism was further accentuated and clarified by Thomas Aquinas who detoured the Moslem intellectual conquest into personalistic channels through a new interpretation of Aristotle's individualism. He thus unwittingly prepared the way for the Protestant Reformation and by the rescue of Aristotle from atheistic hands made possible the coming of a hitherto interdicted scientific inquiry. These various crises in western history furnish convincing evidence of the ways by which institutions fail and fall when, no longer serving as a means to democracy, they are taken as ends. Accepted as an end in itself, the best institution in the world can but become an instrument to enslave the spirit of man. As his best dreams fail or turn to disillusionment, man can only seek again the permanencies which dwell within the human spirit to find the sources and inspiration for a new order.

In view of these facts history may in a very true sense be expected to repeat itself. Our machine age has looked to mechanism and organization to bring it peace and self-realization. As when in the past it has come to depend on outer defences instead of the inner it finds the whole structure it has ordered so carefully, faced with possible destruction. As it is forced by circumstance to reconsider its whole situation it can only save itself as in the past by turning anew to the inner resources of the spirit. Herein lie the opportunities of a personalistic system to furnish light and leading for the future as a living philosophy.

The development of Personalism in modern philosophy can be said to have begun with Descartes (1596-1650). When challenged to produce a system which could be deduced from an initial axiom, the method then made popular by the new development of mathematics, he responded with the maxim: "I think, therefore I am." To Descartes this

meant that in the personal experience of thought lay the primary and indubitable truth, since I can doubt every experience but my own existence. I can not doubt that I doubt. Here, then, in personal experience he grounded his philosophy. To this fundamental dogma of reality he proceeded to add certain pragmatic rules for determining truth, which came to be known as the Cartesian Method. Decisions of verity were to be based on the clearness with which the mind can visualize its percepts. This led to the epistemological rationalism of Locke (1632-1704) and the skepticism of Hume (1711-76), which in turn started Kant (1724-1804) "from his dogmatic slumbers." Emphasis on the Cartesian Method led to the development of Epistemological and Psychological Personalism in which from the time of Descartes to the present, have appeared at least fifty, more or less prolific, philosophic writers. Such a list would include the great names of Malebranche, Leibniz, Berkeley, Christian Wolff, Kant, Hume, Hegel, Lotze, Renouvier, Royce and many lesser lights. The Epistemological Personalists were profoundly, sometimes dominatingly, influenced from the side of Platonic Absolutism and personality was admitted surreptitiously or otherwise because without it as a presupposition thought became impossible. This was notably true in the case of Hegel and Royce. This type of Personalism was most characteristic of the development of philosophy in Germany, England, and the countries under Germanic influence.

Although numbered among Epistemological Personalists because the "Pre-established harmony" seems to have been the *pièce de resistance* of his system, Leibniz (1646-1716) had in his Monadism advanced metaphysical conclusions which could not be overlooked. It remained for Maine de Biran (1766-1824) to take the unqualifiedly personalistic position in metaphysics. His philosophy was known as the *Philosophy of Effort.* He amended the Cartesian dictum "Cogito ergo sum" to read "Volo ergo sum," I will therefore I am. This consciousness of effort in willing and choosing he held to be the direct experience of reality. Free personality was for him the source of absolute beginnings, of causes

which are not the effects of other causes. The person as self-determining and self-active, the real, was the main point of his system.

Biran thus inaugurated a strong and original movement in French thought which has continued to the present and which has been characterized by its personalistic account of metaphysical reality.

Cournot (1801-1877) followed with his *Philosophy of Probability* which shows evidences of his main mathematical interests. He was led to personalistic conclusions by the breakdown of atomistic mechanism through the Newtonian discoveries of action at a distance. He denied the possibility of mechanical continuity (which science now recognizes in the abrogation of its previously held doctrines of causation) and affirmed the only continuity to be personal and purposive.

To Ravaisson (1813-1900) was left the great distinction of a more complete and systematic formulation of personalistic metaphysics. His system was known as *Spiritual Realism* and his ideas were advanced chiefly through instruction, since his writings were few and casual. It is in fact astounding that a man of such meagre writing could produce so profound an effect. Only three brief works are accredited to him, the most important being *L'Habitude,* a brochure of sixty-two small pages. Yet it was to this man that Bergson paid the following tribute:

> Never man sought less than he to influence others. But no spirit was more naturally, more tranquilly, more invinceably rebellious against the authority of others . . . No analysis can give an idea of these admirable pages. Five generations of students have learned them by heart.[3]

Ravaisson maintained an anti-mechanistic position on the ground that mechanism could never explain organism; that qualitatively it reduces everything to identity and has therefore no account to give of quality; that it ignores variety, spontaniety and creation, all of which are apparent in the universe. The ultimately real must possess unity in diversity. This unity in space is organization, in time it is life, where

individuality begins, but the something more that includes all is to be found in personality which since it unites all the diversities into a unity is reality itself. Thus he held nature to be personal. Life is not only organization, it is self-organization. To triumph over change—to rise every moment from death—to reproduce one's self eternally, that is to live. Causality he held to be movement by spiritual activity, nature is personal, spontaneity and freedom constitute reality and only truly good-will is free. The way to supreme self-realization of personality lies in self-forgetfulness, which he beautifully stated in the phrase, "to simplify one's self."

Many of his positions and much of his phraseology reminds us of his brilliant pupil, Bergson, as he was indeed the outstanding teacher of modern French Personalism. Though their interests tended in somewhat different directions, wandering toward epistemological problems, Lachelier and Boutroux with their *Philosophy of Discontinuity* or contingency were also among his students.

Renouvier (1818-1903) though here numbered with the Epistemologists, and approaching Personalism from the side of Hegelianism deserves special mention because of his influence on American philosophy through his pupil and admirer William James. James in his correspondence named Renouvier as the outstanding philosopher of the time. Renouvier held that the only reality is that given in consciousness. Experience is self-sufficient and constitutes the very stuff of reality. Neither subject nor object can be abstracted from experience. To escape relativity he employs two deeper principles: the negative principle of contradiction and the positive principle of belief. Justifiable belief is that which satisfies the total personality. These points disclose to us the relationship to James (Note James' *Will to Believe*) and also the hiatus which is likely to exist between those we have here called epistemological personalists and the more complete and thorough-going metaphysical personalists. Among the latter, in France alone have appeared some twenty-five or more significant advocates.

The British and German development of Personalism has tended mostly to the psychological and epistemological aspects of reality. Among the British personalists may be mentioned Locke, Berkeley and Hume, James Ward, and Thomas Hill Green, the Cairds and a later succession of disciples, down to and including F. C. S. Schiller and Herbert Wildon Carr. British thought has however been strongly tinged with Platonic and Absolutist principles due somewhat perhaps to the influence of the Cambridge Platonists, somewhat to the admiration for Kant and Hegel. Of all the British thinkers Berkeley was perhaps the greatest, the most misunderstood and neglected and with the strongest metaphysical interests. Too often he has been taken as a pure subjectivist whereas he founded his objectivity in true personalistic fashion in the act of the immanent Supreme Creative Person.

The creator of German personalism must of course be taken as Leibniz, who was followed by Wolff, Kant, Jacobi and Hegel. Hegel was primarily an absolutist who could not in spite of himself get entirely away from personalistic assumptions. In general the German school has held to doctrines of consciousness with a tendency to drop into the vagaries of absolute idealism. Lotze was the teacher of Bowne and was vastly influential in the growth of American personalism by reason of the popularity of the German universities for American candidates for the doctorate. Many early American scholars and particularly ecclesiastics found in Lotze the solution of their pressing theological problems.

Influenced by the German school were a number of the French personalists and likewise men of other European countries rather naturally allied to the German universities.

The slow development of personalistic thought has been favorable to a sound progress and makes it the more convincing for our own times for it has profited by scientific advance. It has witnessed the decline of the ebullient and one-sided theories of Positivism, living on a single enthusiasm and destined to be discarded with the materialism which brought it forth. One reason for this slow development

lay in the fact that Personalism offered a mediating position between two extremes that were in deadly conflict. Absolute idealism which was largely inherited from Scholasticism, the Neo-Platonism of the early Church Fathers, was impatient with the humanizing tendencies of noumenalistic, personalistic thought as somehow untrue to the sanctities of God by exalting those of human beings. On the other side was what we may in general sense include under Positivism, which was struggling to get away from the burden of scholasticism to one of free scientific inquiry. To the Positivist the Personalist seemed also to give far too much credence to the person as an essential to reality. At the same time, Personalism since it held to a theistic type of Deity was presumed by the Positivist to hold a dogmatic theological position. Feelings were accentuated on all sides by the conflict which was raging. Nor could the field of thought offer a calmer aspect until mechanistic materialism had been given opportunity to run its full course and to demonstrate to its own less prejudiced followers its utter futility as a system of explanation. Its faulty assumptions have long been kept alive only by the discoveries and amenities which have popularized modern science. Since both the Absolutist and the Positivist have had their heyday it may be that Personalism is about to come into its own as presenting the mediating position between ancient enemies.

Herein may lie the highest claim that Personalism can make as a living philosophy. These elements in its outlook which make it of supreme importance for our time may well be summarized under five heads: its relation to new scientific discovery; its provision for meeting the exigencies of a changing world of thought; its outlook on education; its provision for the religious interests; and finally its necessity to a surviving democracy.

No position could have been more reassured only a generation ago than the conscious security of scientific materialism. The great scientists may have had some misgivings, but these never worked down into the popular mind, nor even to the mind of the popular and journalistic scientist. Then at

the very height of this assurance came the revolutionary discoveries inaugurated by the Roentgen Rays, the doctrine of Relativity of Space and Time, the Quantum Theory, the atom as force, the Principle of Uncertainty, Reality as an event in a space-time continuum, to mention only a part. These, whatever their state of acceptance indicate the passing of that scientific materialism which has held sway for a century and a half to the frequent exclusion of the higher personal, spiritual and aesthetic values. In the course of about thirty years we have advanced from the affirmation that the most certain of all realities is the atom (made by Lord Kelvin) to the contrary affirmation that the most certain of all certainties is the principle of uncertainty. In all the history of philosophic and scientific thought the world has not been faced by so complete and so significant a reversal of opinion since the days of Copernicus.

No change of front could have been made which could offer a better opportunity for the consideration of Personalism as a philosophy. With regard to the exploded idea of an absolute space and time, Personalism has long held the theory of relativity, namely that these are the forms under which we conveniently relate objects and events to each other and ourselves. To the scientist the coming of this dictum into his own field as a matter of mathematical and descriptive necessity has shown that the spectator is himself to be considered a portion of the natural phenomena he describes. Reality can no longer be conceived as something "out there" in which the person has no part nor lot. What is "out there" is also a function of what is "in here" and can be understood only by reference to it. The staggering force of this fact has been accentuated by the discovery of the Principle of Uncertainty. If the new place which the person is seen to take in the consideration of phenomena is revolutionary, no less so is the spiritual significance attending the new view of the atom. The materialism of our hard packed opinions had pretty much driven from our minds the possibility of recognizing any reality or meaning for anything but mass, extension, in-

ertia and movement. To consider the atom then as an event in a space-time continuum rather than an inertial lump of something hard and space-filling makes serious drafts upon our materialistic imaginations. One scientist-philosopher indeed, at the Paris Congress of Philosophy in 1937, declared the Principle of Uncertainty to be untrue because it ran counter to his logic; a case of materialistic science defending its "facts" by an appeal to philosophy. If the "matter" of the atom is an activity making itself known through a space-time continuum it certainly becomes easier for the Personalist to maintain the reality of those moral and spiritual choices contingent on the activity of the self which issue in events of far greater significance for human happiness and destiny than any known atomic activity. Personalism is already in the field with the assertion that reality is an activity toward ends and needs no lumpish confirmation aside from its bearing on human experience.

Personalism is equally prepared to meet the exigencies of a changing world of thought. This it does by placing the demands of life and change before the demands of formal logic, or accepted ideologies, or totalitarian ideas in church, state, or society. It holds the person himself, his welfare physical, mental and spiritual, the opportunity for free development, consonant with the rights and freedom of others as the supreme end of all statecraft, or social organization. These in themselves are only the means to the end. If then institutions fail of the best interests of persons by that they are to be judged. Personalism is then not to be looked upon as an ideological system already completed or to which it is necessary to be conformed. Its vitality is the vitality of life itself which is best evidenced by the power of self-adaptation. Nor is the personal reference to be judged a weak and impermanent thing. The most continuously permanent thing in creation is the demand of the human soul for freedom, the thirst after fullness of life and opportunity. These demands are written into nature itself. However much the individual may misunderstand his own needs and abuse his best opportunity

there is satisfaction for him at long last and the solution of his problems only in the realization of his best and highest self. The search for these ends will vary with the passing centuries: the only unvarying factor will be the need itself and its solution in the search for the highest. Since that highest can be found and understood only by search and self-discovery, Personalism realizes that the problems of the next generation cannot be solved by fastening upon it the shackles of opinions, ideologies and views of the past. In the freedom of the struggle lies the only hope of success. Its personalistic character guards it even from its own dogmatisms and the danger of trusting in fixed systems already complete. Personalism is a living philosophy because it is a philosophy of life. Its true value has been best shown in hours of the greatest historic transition.

The personalistic attitude toward education is marked by the same characteristic of freedom. In the field of education the struggle has gone on between those who would make of education a fixed and mandatory system of studies characterized by a high degree of discipline from above, and an opposing group who would leave the child free to make his own choices and discoveries. If the first type of education may be said to have failed by destroying initiative in the individual and forcing upon him studies not in keeping with his character and needs, the second system has too often left him without either discipline or education.

Here Personalism would recognize the common danger in both systems of too close an attempt to follow a like ideology in every case without regard to the needs of the individual. Personalism, would hold the chief aim of education to be the production of personal value. Value in such a system would include the full cultivation of the person in such studies as would yield the largest understanding of the meaning of life, of history, of cultural heritage, of self-discipline, of morality and of religion. Over against the value of initiative in the individual it would balance the value of self-control, over against the training for financial and social success it

would balance training for social sympathy and self-giving. All education would take on an ethical significance since its end would be the production of the highest personality, the completest self-realization which can ultimately be reached only by spiritual achievement. It may be objected with much force that such an effort could never succeed since it must fall into the teaching province of people with no ethical qualms of conscience, or into the hands of religious people who would seek to impose special religious views and shackle youth with their own narrow opinions. Such a result does not necessarily follow as the long history of American education goes to prove. The ethical achievement in our schools has been high when insistence was made on religious and ethical-mindedness on the part of our teachers without regard to religious affiliations. Our present situation may be due to many causes but there are at least two prominent ones. One is indifference to the ethical and moral standards of the teachers employed, the other the widely prevailing belief fostered by a certain type of psychology which holds that man is without free choice and can only yield to the immediate impulse. Thus we have at the present moment trained a generation of youngsters to believe that there are no such things as moral values and that they are free to do whatever they can "get by" with. Personalism without entering at all into the theological realm would endeavor to demonstrate the fact that moral values are the most certain and the most real of all values with which the person has to deal. It would show the law of honesty for instance to be as undeviating as the law of gravitation. It would indicate how if the cheater "gets by" with others he in a much deeper sense cheats himself, a penalty he can in no wise evade. From the standpoint of the person, his highest development, his capacity for success and happiness, the betrayer inflicts upon himself and his future a betrayal far deeper than that of the person wronged. The constitutional liar builds about his life an atmosphere of falsehood that eventuates at last in deceiving himself more than anyone else. Personalism would call attention to the loss of unity within the personality which inevitably follows on

any wrong doing, thus lowering the powers of the creative imagination introducing inferiority complexes and detracting from the highest success. Such are the brief illustrations of what might follow in the wake of a theory of education which had a due consideration for human and moral values. The times are rotten ripe for new practices in education.

The services which Personalism might render to religion are perhaps equally great. Here again Personalism does not seek to transplant but only to offer itself as a mediator of differences.

The differences which divide the sects of Christianity and the diverse world religions may well be taken as being as irreconcilable as the differences between people's faces, the fashion of hair and neck-tie, and the cut of their clothes. Little would be gained at present by an attempt to have them think alike (impossible any way) or to don the same ecclesiastical millinery. There are some similarities however upon which might be based a deeper sympathy which would be important for world-amelioration. Personalism is not one of the philosophies that considers it necessary to remove all religious beliefs from students before it can propagate itself. It believes religion to be a legitimate demand of the human spirit which can be neglected only at very immense loss to the person whose religious longings are not met. There can be no differences among religious, or irreligious, people for that matter, about the desirability of living "a considered life." The values of good-will and love do not need to be argued anywhere. The beauty of self-forgetfulness for the common good is recognized in every religion or irreligion. Obviously he who forsakes all lesser ways and seeks after these things learning to love them until after the manner of Ravaisson's *L'Habitude* they become the instinctive reactions to life and human relations, such a man is in some sense, the truest sense perhaps, religious.

It is the aim of all religions to produce these results which are of the highest importance to the development of the

person and his self-realization. The only question is what system produces the best and surest results. We can well judge that not by the claims of clashing sects and religions but by the results. After all, these things are but means, the end is the production of the best person. It is really too bad that we cannot call a moratorium on religious conflict until we have been able to check up on the output of systems for which the highest claims are made. Personalism urges this new attitude toward religion which it recognizes as one of the most deep-grained necessities of man.

We have left for final consideration the relation of Personalism to democracy, not because this is the climactic order of importance but because it is at the present the element most likely to be brought into question.

The only abiding basis for democracy is respect for the sanctity of the person. This does not mean respect for *some* persons but for those possibilities which reside in varying degree in *every* person. Personalities are unique in that which they can offer to the common weal. An organized and progressive society cannot afford to forego the possible contribution to progress of any of its members. For this reason democracy will seek to provide the circumstances in education and freedom and work under which each person may best realize his own and the common good. This means that personality is recognized as an intrinsic value, the most precious possession of society and the greatest source of social advance and welfare.

The development of the person can be achieved only under the highest possible conditions of freedom. But freedom is discovered as possessing limits in an ordered society. The person can be free only to the extent of not impinging on the reasonable rights and opportunities of others. It is obvious then that freedom must be practiced with self-restraint. Democracy cannot exist without a rigid self-control on the part of each citizen. Democracy is impossible to a group of criminals or thugs. Personalism becomes a chief aid to democracy then by showing that self-control is itself

one of the rare and necessary elements of self-development. The person can realize his own highest gifts and happiness only in the service of all. Personalism is opposed to every totalitarianism because only in freedom can each person achieve the best that is in him. It is the proponent of democracy because only in self-restraint can be raised any permanent or enduring structure of society. Nor is it a thing of weakness for "there is nothing so powerful as an idea when its time has come."

1. The word *Personalism* first achieved Dictionarial or Encyclopaedic standing in Volume IX of the Hastings' *Encyclopedia of Religion and Ethics* in 1915 in an article by the author of this sketch.

2. "Toute la philosophie de M. Ravaisson," dit-il, "dérivé de cette idée que l'art est une metaphysique figureé, que la metaphysique est une reflexion sur l'art, et que c'est la meme intuition, diversement utilisée, qui fait le philosophe profond et le grand artiste." Introduction to *L'Habitude* par Ravaisson, Jean Baruzi, 1927. Pp. xxxii, xxxiii.

3. "Jamais homme ne chercha moins que celui-là à agir sur d'autres hommes. Mais jamais esprit ne fut plus naturellement, plus tranquillement, plus invinciblement rebelle à l'autorité d'autrui." P. 689. "Nulle analyse ne donnera une idée ces admirable pages. Vingt generations d'éléves les ont sues par coeur." Pp. 693-4. Notice sur le Vie et les Oeuvres de M. Felix Ravaisson-Mollien. ap. Séances et travaux de l'Academie des Sciences Morales et politiques. CLXI Paris 1904. Quoted in Introduction to *L'Habitude* — Jean Baruzi, 1927.

SELECTED BIBLIOGRAPHY

Berdiaeff, N. A.: The Destiny of Man, 1937
Bowne, B. P.: Personalism, 1908
Brightman, E. S.: Is God a Person? 1932
Brightman, E. S.: A Philosophy of Religion, 1940
Buckham, J. W.: The Inner World, 1941
Carr, H. W.: Cogitans Cogitata, 1930
Carr, H. W.: The Unique Status of Man, 1928
Eucken, Rudolf: Christianity and the New Idealism, 1909
Eucken, Rudolf: Life's Basis and Life's Ideal, 1911
Flewelling, R. T.: Creative Personality, 1926
Howison, G. H.: The Limits of Evolution, 1901
Knudson, A. C.: The Philosophy of Personalism, 1927
Ravaisson-Mollien, Félix: De l'habitude, New ed., 1933
Renouvier, C. B.: Le personalisme, 1903
Stern, William: Person und Sache, 3 vols., 1906

The Personalist

PHENOMENOLOGY

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I. CONCERNING METHOD IN PHILOSOPHY

It is a revealing commentary upon the state of philosophy to observe that any striking attempt to determine its subject-matter anew is given wide attention, whether it be successful or not. Truly here is a *differentia* for philosophy. The conspicuous attempts that have been made in recent years have resulted in much controversy, but unfortunately not always in really informed discussion. Nothing less than the meaning of the philosophic enterprise as a whole has been called in question.

An account of the meaning of philosophy should not exclude its historical status and function. What philosophy is must be determined by the historical facts;[1] what it should be remains to be established. Traditionally, philosophy has functioned as an expression of the leading motives and interests of a historical period. Conditioned by the prevailing scientific level, which provided its main theoretical content, it also responded to social, political, and religious influences.

Clearly evident throughout the history of philosophy, however, were periodical attempts to construct a scientific philosophy which would be binding on all thinkers, a discipline whose propositions would be valid once and for all time. The prime requirement of such a philosophy is that it have a well defined method. The general *law of method* which holds for all our thinking—namely, that every statement must be examined with respect to the method by which it was obtained or established—certainly holds good for philosophy.

Care must be taken to avoid the narrowness which may result from the exclusive use of one method. Each type of

method has been devised for a definite purpose, in every case to solve problems or to answer questions. Hence there is a place for all of them, whether to solve real problems or to dissolve unreal ones. In this sense there may be "tolerance." It is not true that the procedures employed in philosophy cannot be subsumed under the concept of method in general. The very process of reflection which is required becomes a theme for a methodological analysis for which there are no exceptions. Because the questions which prompted the development of philosophical methods are most fundamental and universal in their significance, the latter "precede" all other methods. But that is not to say that they are not related to other methods.

It would be impossible to decide in advance and finally concerning the procedures that may be employed in philosophy. That could only be done if all types of question which could ever arise were known. But it is another matter to ask whether philosophy makes use of any methods which are peculiar to it, and which are "prior" to all other procedures. Synoptic generalization, or the interpretation of reality as a whole with reference to the special sciences, is peculiar to philosophy. Although it is an essential element in all constructive philosophy, it may be undertaken naïvely, or critically. It is naïve if the findings of the special sciences are simply taken over, in order to effect a cosmic generalization which seems to account for the facts known at a given time and must be dated (e.g., Haeckel's *Riddle of the Universe,* 1899). In that case one has hardly touched the ground of philosophy. That must be determined first of all. The preliminary question of defining the nature of the subject-matter of philosophy requires the elaboration of a method which defines its starting-point and its entire constructive program.

The phenomenological method has been designed to meet this need. It endeavors to "found" philosophy as an autonomous discipline, and to formulate the procedure which makes it not only the fundamental "root-science," but also enables it constructively to serve all knowledge.

This method should be considered in connection with two other leading types of procedure. (1) The exact method of formal logic could hardly function as an organum for philosophy. Its merits are, however, undeniable. As represented in the literature of logical positivism, the program of linguistic analysis aids in detail in realizing the Leibnizian-Husserlian ideal of a *mathesis universalis.* As in the case of phenomenology, its criticism of past and present philosophical trends may well be permanently damaging and beneficial. If objection is taken to it, that is for at least two reasons: (a) It cannot be the only method of philosophy, for it does not do justice to the whole field, both systematic and historical. It is not enough to dismiss most traditional philosophy as being poetry.[2] (b) It is not the most fundamental philosophical method, and really operates on a high level of forms and devices produced by the understanding. Symbolic structure is central for it, and there is a group of presuppositions requiring clarification. It is not intended to give us that final understanding which is expected of philosophy as a whole. In its program of empiricism it can be expected to come to terms and to coöperate with the phenomenological approach, on the basis of an adequate analysis of experience.

(2) The dialectic method, on the other hand, in its most fruitful form, proceeds from the dynamic world of reality. A thoroughly dialectical or existential logic must treat all things, including the "strata" of ideal meanings and structures, as phases of becoming. This method includes the element of synoptic generalization; and its point of departure may be the world of nature, the universe of events, or, as has also been the case, a spiritual principle. Because it presupposes logic as well as the validity of knowledge, it cannot function as the basic philosophical method. The procedure to be adopted by a completely reflective philosophy must take due account of both types, and add more besides, which means that the reflective criticism and appraisal of all methods is involved. The systematic detachment that is applied to methods may be used on its own account for phil-

osophical purposes. This is a generalized view, of which the special types of method represent particular phases.

Every method has its own proper questions; and there are special problems due to the very choice of a given method. For a transcendental philosophy (*qua phenomenology*), the existence of other minds is a problem. The external world is a problem for a logistical philosophy. Universals present a problem for an empiricist, and induction for a materialist or for a dialectician. If we do not speak of such questions in connection with a naïve philosophy, assuming that such a view involves no contradiction in terms and may be called a philosophy, it is because so much is taken for granted and nothing is questioned fundamentally.

In the special sciences, the realm of natural existence and experience, even logic, may be taken for granted. One begins with "the world." On the other hand, one may begin with the subjective process of knowing and experience. Each type of beginning has its advantages and essential limitations. The question of a beginning is accordingly of deciding importance. The number of possible beginnings which are different on principle turns out to be very small.

So far as actual existence is concerned, the philosopher does not make a complete and self-sufficient beginning. He cannot create his subject-matter out of the whole cloth. There is a "pre-given" realm for him, as well as for all other people. "Pre-givenness" means that something exists in advance of and independently of experience. Thus one can speak of the pre-given with respect to his own actual experience, or to that of all simultaneously existing knowers; and, again, with respect to the experience of all human beings, past and present, or finally to that of all real and possible knowers.

Although the existence of a pre-given realm must be granted from any point of view, including that philosophy which undertakes to achieve completeness of understanding on a descriptive basis, it need not be explicitly treated as an

placed in question without being denied. A completely understanding philosophy can only be made possible by the examination of all beliefs and assumptions. It must set up the ideal of the inspection of all elements of interpretation which the mind contributes to the world of experience, as well as of the creative activities of our thought processes. It therefore appears that only a subjective approach to philosophy will answer all purposes, i.e., an approach and method that are adequate to the analysis of subjectivity and the structure of knowledge. This means that the basic method must be subjective, and not that any restriction will therewith be imposed upon methodology.

It is true that there is a real danger of individual arbitrariness in the use of a subjective method; but it is equally true that any so-called objective method may be vitiated similarly. The only point to be noted is that in such a case a genuine philosophical method has not been employed. In other words, an arbitrarily employed subjective method is no philosophical method at all.

II. THE NATURE OF PHENOMENOLOGY

Modern phenomenology is associated with the name of its founder, the late Edmund Husserl.[3] It derives from a large part of the history of philosophy, and claims to be the culmination both of rationalism and empiricism. The influence of his master, Franz Brentano, linked Husserl with medieval philosophy, and was directly responsible for his being a member of a notable group of investigators doing significant work for psychology, a group including Stumpf, Von Ehrenfels, Marty, and Meinong. The almost simultaneous publication of Von Ehrenfels' paper on Gestalt qualities and Husserl's study of the immediate apprehension of aggregate-characters in his *Philosophy of Arithmetic* is noteworthy.

The reader of the literature of phenomenology is impressed with the openness and diversity of its studies. There is no suggestion of a closed system. In his *Logos*[4] essay on "Philosophy as a Rigorous Science," Husserl characterized

the traditional systems of philosophy as so many Minervas which sprang fully grown from the God-head of Zeus (or from the minds of their makers), only to be stored away in the Pantheon of the history of philosophy. Phenomenology, on the other hand, represents a quest for truth, and it endeavors to contribute to the achievement of the latter by the coöperative work of generations of investigators.

The first definition of phenomenology (as conceived by Husserl) was *descriptive psychology,* meaning really, descriptive theory of knowledge; and its original problem was the "clarification" of the fundamental concepts of logic and mathematics, and of their relationship to thought processes. In a narrow sense, phenomenology is a descriptive theory of knowledge, and is regarded as being what was sought unsuccessfully under the title of *empirical psychology* in the British tradition. In its wider sense, as transcendental phenomenology, it is intended to provide a universal (and presumably the only) method for philosophy and a final foundation for science. In his last published writings, Husserl paid particular attention to the problem of history, and to the "origin-analysis" of our basic ideas and principles.

The phenomenological method is subjectivistic, as opposed to the objectivistic, pre-Cartesian point of view. Descartes' *Meditations* represent, for phenomenology, a turning-point in the history of philosophical method, even though Descartes himself had no clear idea of the significance of his procedure and failed to carry it out consistently. The style of philosophizing was illustrated by his attempt, for it became evident that an autonomous philosophy must begin with the meditations of a self-reflecting ego.

The choice of a subjective method is due to the aim for complete and *radical* understanding, which is of deciding importance for philosophy. Nothing may be naïvely assumed; there must be no pre-judgments. In the natural view of the world, the common-sense view, and in all the special sciences, a general thesis of existence is taken to be obvious. Its unconscious acceptance is well justified for purposes of

natural existence, but not for theoretical understanding. A world existing continuously and independently of our experiencing is the natural basis for non-philosophical thinking. But because philosophy is guided by the ideal of completeness of understanding, it cannot allow even so obvious a belief to remain unquestioned. The "natural" view of the world after all contains elements of theoretical interpretation to which we have become accustomed. In short, everything must be questioned, including the phenomenological procedure itself. Hence only a subjectivistic method which begins with the experiencing knower and his evidence will answer.

Although this fact has long been recognized, it was only in recent years that the program and technique of a *pure* subjectivistic method was worked out. In order to accomplish that it was necessary to expose and refute a partial and misleading type of subjective method, known as anthropologism or psychologism, according to which psychology, or the general study of man, was to provide the basis for philosophy. Two conflicting points of view within subjectivism were thus at issue.

Husserl's now classical refutation of psychologism and of kindred forms of relativism in philosophy appeared in his *Logical Investigations* in 1900; and it is also discussed in some of his later writings.[5] In arguing for the autonomy of reason, Husserl had in mind the independent validity of pure logic and of science in general. That did not mean independence in every sense, however. To be sure, the organism does the reasoning, and there is dependence on it, as a physical process. But by "reason" something else is meant. It refers to the ideal content of the reasoning, or to the ideal objectivities that are involved. It thus comprises the entire realm of thought that is subject to logical principles. The object of reason is never a particular matter of fact, but is something general. Not being extended in time and space, it is meaningless to speak of its dependence on particular things. On the other hand, to speak of the autonomy of reason is not to consign it to a Platonic heaven and to endow it with

a superior being of its own. All that is meant is that its validity is independent of matters of fact, and that ideal relationships are in question. This is held to apply to the ideal laws of reasoning as well as of reason.

The method of transcendental phenomenology was declared by Husserl to be the specifically philosophical method. Not only does it differ on principle from other methods, but as the preparatory procedure which marks off the realm of philosophy and makes its subject-matter completely accessible for the first time, it was held to be prior to and to underlie all other methods.

The ideal of a fully self-conscious and self-critical methodological inquiry had never before been achieved to such an extent. There were to be no unclarified motives and concealed assumptions. How revolutionary and epoch-making Husserl conceived his philosophy to be is shown by some of its characterizations. In the *Logical Investigations*,[6] pure phenomenology is described as a domain of neutral investigations in which various sciences have their roots. In his *Logos* essay, philosophy is characterized as being essentially the science of true beginnings or origins; and it is pointed out that the science of the radical must also be radical in its procedure, in every respect.

This note is again sounded in a later writing,[7] in which the radicalism of the foundation of philosophy is defined as "absolute freedom from all presuppositions." The "phenomenological reduction" is intended to make possible this "radical form of the autonomy of knowledge . . . in which every form of datum given in advance, and all being taken for granted" are suspended. Philosophy must "take possession of the absolute fund of pre-conceptual experience," and then "must create original concepts, adequately adjusted to this ground, and so generally utilize for its advance an absolutely transparent method. . . ." Husserl described his concept of philosophy as the most original idea of philosophy, which, since its formulation by Plato, has been basic to European philosophy and science. It is a science "with a final

foundation"; and it represents an ideal which, it is recognized, can only be realized in an infinite historical process.

III. REDUCTION AND CONSTITUTION

The phenomenological reduction is the primary step for the constructive work of philosophy. It is really twofold, and consists of (1) eidetic reduction, which means that only essences, or essential structures, are of interest, and not particular facts;[8] and (2) transcendental reduction, with its technique of "elimination" and "bracketing," which leads one back to the "pure" consciousness of an individual knower as the starting-point for philosophy.

The transcendental reduction is frequently referred to as the *epoché*, or the suspension of judgment. Husserl liked to use the Cartesian method of doubt as a means of explaining it, a device which also had the advantage of emphasizing the certainty, or indubitability, of the experiences themselves. As Descartes reflected, the world may or may not really be as it appears to us, or, improbable though that be, it may not be at all. But the experiences referring to the world cannot be denied without contradiction. In phenomenology this line of thought is followed out with thoroughness. All judgments of existence (all "positings") in any form, including judgments involving material things, other human beings, and, in general, the existential judgments of all the sciences—are to be eliminated (which means that they are suspended, placed in abeyance); and the objects, real or ideal, to which they refer are bracketed, or placed in quotation marks. What is left is the stream of pure experiences of a single experiencing being —my own perceivings, rememberings, imaginings, etc. The world has become a bracketed "world"; it is merely a phenomenon for my transcendentally reduced consciousness.

In its Kantian formulation, knowledge is "transcendental" if it is concerned with our manner of knowing objects, rather than with objects. If the thesis of existence is eliminated, as has been indicated, its meaning for phenomenology is clear. It means pure reflection, which is one degree removed from

the reflection normally illustrated in natural experience (or with the "natural attitude"). The term "pure" is understood to mean that the epoché has been performed.

The phenomenological method requires a well defined *attitude,* for which all mundane beliefs are not merely suspended temporarily, but for always as a matter of principle —as long as one wishes to work phenomenologically. This attitude is fundamentally different from the *natural* attitude, which is the attitude of all of us, including the phenomenologist when he is not engaged in his investigations, in our normal living and thinking. For it a world indefinitely extended in space and time is "there"; other people exist independently of one's processes of experience, and have minds; etc. When all the objects of this world are placed in brackets, in accordance with the requirements of the method, they may still be used as guidance for us in our pure reflective analysis. But they may not be used as the object-basis of pre-judgments for a method which proposes to test all knowledge before the bar of immediate, direct experience.

The transcendentally reduced experiences constitute the theme of phenomenology, the stream of *cogitationes* in their typical forms, and the *cogitata* as the meant objectivities. This is the necessary first stage of a truly radical philosophical inquiry. Husserl has spoken of a gigantic "field" for investigation which is opened up thereby. Although his meaning is precise enough, there is always danger in the use of such pictorial language, both for his followers and his opponents, for it might be subtly suggested that some kind of special spiritual province had been isolated. That is entirely ruled out, however. When criticizing the newest type of anthropologism which derives from Dilthey,[9] Husserl pointed out the misunderstanding involved when one argues that the pure ego is an abstract stratum in the concrete man. That is simply to remain with the natural attitude and to reason on the basis of the general thesis of the existence of the world. Either one really performs the epoché, or one talks about something else in the field of the special sciences, which are partially or wholly "naïve."

The term "naïve" is opposed to "radical." It may seem to have an element of disdain when used with respect to the naturalistic, evolutionary point of view, or the Marxian point of view, for example. That is by no means a proper usage or understanding, however, and only an exclusive preoccupation with pure reflective analysis can account for the occurrence of that error. Husserl himself stated that he never had any occasion to deal with particular "naïvetés" pertaining to the philosophy of history, such as those of Marxism. In methodological contrast to them is his conception of genuine philsophy as a science on the "absolute" ground gained by means of the reduction, which yields a universal ground of intentional experience. That does not mean that the element of history was to be neglected in every sense; nor does it mean that historical studies and generalizations on the factual level were to be challenged. What he regarded as the "absolute historicity," in which everything that exists is "constituted," is revealed by the pure experiences themselves. Once the reduction is performed, human history, people, and societies are to be regarded as "constituted unities." It follows that all evolution in the usual sense belongs in the constituted world. Its validity is acknowledged, in the sense that everything that can be exhibited scientifically in the world of experience is accepted. But once one has gone back to the "transcendental dimension," to the "absolute, all-constitutive, intersubjective intentionality," an absolute "evolution" is discovered. Previous philosophy lacked the concept for that, for it operated on the basis of a naïve, self-evident world-ground.

The reduction to the ego-basis is necessary for the desired ultimate clarification. Although it is known to be true, from the point of view of the natural attitude and on the basis of the special sciences, that the real ego is an evolutionary, social product, and that it could not be conceived as detached from a social group, that knowledge is not relevant initially for the phenomenological method. If one were to begin with intersubjectivity (or with a plurality of minds), the analysis would not be as thoroughgoing because the ques-

tioning would begin at that point. If one begins with his own ego, then other minds must be established (the problem of the "alter ego").

The "field" of transcendental consciousness that is opened up by the epoché can be described in familiar terms. The transformation that is carried through is a universal one, so that no special symbolism is desirable, other than, perhaps, quotation-marks. Thus, "tree" would stand for the intended tree, which is not posited as existent, but is merely the objectivity correlative to my awareness of it. It is the *noema* that corresponds to the cognitive activity, or the *noesis*.[10]

It will be asked whether one is able to deal with the ever-present problems of the natural world, once the epoché has been performed. In the first place, the reasons for that procedure should be recalled. Certain aims were to be achieved thereby; the critical, reflective point of view which is developed enhances, for example, one's capacity to examine the basic concepts and principles of the various systems of knowledge. The reduction is thus of aid in all "world-bound" subject-matters. To bracket the world is not to deny it, or to hold that it presents no philosophical problems. Although individual philosophers may find the procedure congenial in that it facilitates (for them) a flight from reality, what it really means is that the world and its problems are viewed in a new way, and that a more complete understanding of them is made possible. The important change to be noted is that the original "naïveté," in which the world was taken as a pre-given realm, is abandoned. No element of the natural, pre-reflective-phenomenological experience is lost thereby. All elements of natural experience are preserved, but are viewed in a different way, subject to the conditions of the reduction. Far from turning away from the world, it is maintained that a really radical investigation of the world has been made possible for the first time. In addition to that, the attitude of pure reflection makes possible a more thorough and discerning analysis of experience, and of the part played by the mind in the process of experience.

It is important to bear in mind the conditions under which phenomenological analysis may be employed. The essential analysis of the phenomenological attitude is seemingly remote from the natural time-bound problems that concern us. It will be helpful to ask for the conditions under which pure mathematical analysis may be employed. It "underlies" practical or applied mathematics; and it must be developed "purely," and not be bound to applications. The world of natural experience is the point of departure, and the idealities of mathematics are originally derived from it by a process of abstraction. They then seem to enjoy a life of their own—or so they are treated. But it would be a naïve dogma to construe them metaphysically as independently real. Just as pure forms are applied to real situations in mathematics, so phenomenology is concerned universally with essential structures and patterns which are illustrated by real situations, whether psychical or physical (whether objects of naturalistic psychology, or of physical or social science).

In commenting upon the distinction between psychological and phenomenological questions, Husserl pointed out[11] that the phenomenologist in his doctrine of essences is no more concerned with the methods for determining the existence of the experiences which serve as a basis for the phenomenological findings than the geometer is in determining methodically how the existence of the figures on the board is to be rendered convincing. In short, geometry and phenomenology are sciences of pure essence, and not of real existence. Husserl goes so far as to state that clear fictions serve the sciences as a foundation even better than do data of actual experience. In his view "the science of pure possibilities must everywhere precede the science of real facts, and give it the guidance of its concrete logic."[12] This is taken to apply in a more exalted sense to the service rendered by transcendental philosophy. The term "precedes" is intended to be used in a logical rather than in a temporal sense, and the value of that point of view must be measured by its value for thought, or by its results. The former is abundant justification for the

entire investigation. The latter is illustrated conspicuously by the mathematical theories of nature, but admittedly only a beginning has been made in the case of transcendental phenomenology.

Husserl believed that to know the world as a transcendental phenomenon is to know it "as it was in the first place." That contention cannot be taken in a temporal sense, because the natural world-time has been bracketed. It can only mean that the real state of affairs and the essential relationships underlying it are first seen adequately by means of the epoché. The knowledge thus obtained may be said to be "prior" knowledge in the same sense in which pure mathematics is prior to applied mathematics.

The technique of phenomenological analysis is not entirely new in principle. On the contrary, a kind of epoché is illustrated in each special science in which a characteristic set of concepts is "placed in question" or examined. The procedure is incomplete in two respects in such cases, however: (1) only a limited set of concepts and principles, in a restricted area of knowledge, are involved in each case; (2) while placing one set of concepts and principles in question, all other sciences may be assumed. In phenomenology, on the other hand, all knowledge and experience, actual and possible, are referred to; and no use may be made of the assumptions of the special sciences. The epoché is intended to be as universal and thoroughgoing as possible. To be sure, no one can guarantee that it has been ideally carried out. But that consideration does not affect either the validity or the necessity of the procedure.

The very awareness of the natural attitude is only possible by the adoption of the reflective attitude. In that sense, every consideration of a point of view as a whole requires at least partial detachment. One may speak of degrees as well as of types of epoché. Thus the methodological epoché is distinguished from the existential type of suspension. Differences of degree are shown by the hierarchy of the sciences, with a purely reflective philosophy as the basis. A science of

method is only made possible by a certain reflective "distance," a degree of detachment which permits the inspection of all methods. The circularity that is unavoidable, from a practical point of view, does not vitiate the procedure. While examining methods we think and make use of various methods. But that does not affect the validity of the procedure, for it is merely provisional, and is intended to await justification.

Genuine reflection requires epoché in any field of discourse. In ethics, the first condition for clear and critical thinking is that the student suspend all beliefs and theories that had been accepted, whether on authority, or naïvely, or even for "reasons." Philosophical reflection requires a consistent effort to apply this procedure universally. "Rock bottom" is reached when one inspects all beliefs in the light of his own pure experiences and determines their evidence thereby. Having arrived at that point by means of the reduction (or reductions, as shown in Husserl's *Méditations Cartésiennes*), the procedure of the philosopher is seen to be descriptive, and constructive on that basis. That is the program of constitutive phenomenology.

Corresponding to the "two-sidedness" of experience are two lines of inquiry, "the one bearing on pure subjectivity, the other on that which belongs to the 'constitution' of objectivity as referred to its subjective source."[13] This qualification, expressed by the words "objectivity *as referred* . . . ," indicates the proper scope of the constitutive phase of phenomenology. The possible ambiguity of the term "constitution" must be noted.

In his posthumous work on *Experience and Judgment,* Husserl expounds and illustrates this method in detail. Its meaning is clearest on the level of the "objectivities of the understanding," where one may speak of the constitution (or of the "constitutional genesis") of propositions, and of "fact-objectivities." There one may observe the results of "creative spontaneity," in contradistinction to the level of receptive experience, for which the objects are "pre-given."[14]

The non-historical sense in which "genetic" or "origin" analysis is meant should also be made clear. There is no interest in the first, historical genesis, or in the origin of knowledge in every sense, but rather in that kind of production through which knowledge arises in its original form of self-givenness, a kind of production which always yields the same knowledge in its repetitions.

IV. SOME RESULTS OF PHENOMENOLOGICAL ANALYSIS

A. Levels of Analysis.

Once the reduction has been carried out, and the nature of pure reflective analysis determined, the interest centers upon the nature and content of experience. Brentano's term, "intentional," which was derived from medieval philosophy, is retained to name the essential objective relatedness of experience, although its meaning is changed in phenomenology. The analysis of intentional experience that is greatly facilitated if not made possible by the phenomenological technique of analysis constitutes its greatest claim to importance and fruitfulness.[15]

In recent philosophy the question of the nature and validity of *a priori* knowledge has been prominent, as indicated by the work of C. I. Lewis. The Kantian principle that we participate in the formation of our experience has continued to provide the approach to this question, which is also of central importance in phenomenology. Mind is found to contribute to its world on different levels of experience. The difference between the levels of sense-perception and the understanding must be recognized first of all. If one speaks of "contributions" of the mind, that implies that something is "given"—an "original life-world." Beginning with the most rudimentary types of experience on the sensory level, the goal is to trace out the constitution of the forms and meanings that are met on higher levels, such as relation, the modalities of judgment, fact, essence, etc. This indicates what is meant by "origin-analysis," or by the "genetic" method in the phenomenological sense of the term. It is

not the actual temporal succession that is of interest here, but the essential process of the formation of complex structures out of simple ones.

In tracing the concept of relation to its "origin in pre-predicative experience,"[16] for example, we are not interested in actual experiences. Essential structures are alone of interest to us here, as elsewhere in science. Husserl has outlined a "method of variation" for determining essences.[17] No one can in truth profess not to know essences, for they are illustrated widely in our knowledge. Thus, it is essential to consciousness that it be of something; and it is an essential law that every experience of remembrance refers back to an original impression.

The analysis of the contributions of the mind includes an account of universals, which are the results of a process of ideation. They are non-real and "timeless." They cannot change, but they may cease to apply to the actual world. Furthermore, our interpretations of them may change, and the experiencing of new ideal objectivities can continue. In this sense they can be said to have a historical aspect.

It is possible to speak in universal terms about the analysis because the transcendental reduction determines a closed sphere for investigation, for which the constitution of all structures on the basis of pure consciousness is the goal. In this way a body of essential knowledge is delimited. It cannot be expected to account for the world of natural experience in terms of natural causation. The world can be treated by it only in so far as the mind has functioned, and the "given" (or "pre-given") as such cannot be accounted for.

B. Concerning Phenomenology and Metaphysics.

The essential analyses of phenomenology represent conditions of the actual world in the sense that the actual world is an exemplification of the essential structures that have been determined. But, it will be asked, is there anything about the findings of phenomenology that prescribes the future course of the world? To speak of ideal structures and laws as being necessary is to maintain that they could not

"be" what they are and yet be otherwise. That is not to legislate for matters of fact, even though such principles as non-contradiction may be regarded as negative conditions of possible being.[18] In this sense, it may be said that there are conditions or principles which must be fulfilled if anything at all is to be possible.

The question has been raised as to whether phenomenology can differentiate between true reality and deceptive appearances. But that is not a proper question for phenomenological analysis. It does not have to provide such information, and is concerned rather with the nature of such types of experience as illusion, phantasy, perception (in its various stages of completeness, culminating in adequacy or evidence), etc.; and its descriptive analyses hold good whether we actually have experience or not. As far as the types of experience are concerned, the experience of true reality is therewith distinguished from that of deceptive appearance. That is to say, on the reflective level of analysis. It is fair to ask whether a metaphysical element has been injected in the question, and whether an avowedly non-metaphysical method has been expected to do something for which it is not intended.

The term "real" may be applied to ideal meanings as well as to physical and psychical events. If the term means merely that an event or meaning is independent of any actual knower for its status or validity, then ideal relations and entities may be said to be real. That is the broadest, epistemological sense of the term. While it is true that human knowers have abstracted the ideal meanings, it is also true that there is something objective and compelling in the relationships, and in the very status of "the same" ideal entity as such. Thus one can prove correctly, or fail to prove, a mathematical proposition. Others may do, or fail to do, "the same" thing. In all such cases, or wherever various knowers can intend the same thing, we have a difference between the subjective and the objective. The latter may then be said to be "real" in a broad sense.

It cannot be emphasized too strongly that the phenomenological method deals with *phenomena,* and that all the questions it raises are significant only with respect to a knower. When "being" is spoken of, *known being* is meant. It is erroneous, then, to speak of the "origin of being" in the ordinary, literal sense of these terms, if by that expression something else, and quite acceptable, is meant. The term "origin" has been seen to be a technical term; and the expression is elliptical, for it refers to the origin of our "intention" of being. Similarly, the world is not constituted, if those terms are understood in their ordinary meanings. The danger is that philosophers may deceive themselves by confusing connotations of the terms just as Berkeley did in the case of the term "idea," which turned out to be something "in the mind." In short, the danger in question is one of confusing "reduced" with "unreduced" terms. This danger can operate in two directions: the non-phenomenologist may criticize phenomenology, expecting it to do what it cannot do on principle—to function as a naturalistic method; or the uncautious phenomenologist may deceive himself by using assumptive language, when speaking of constituting the world, etc.

As a matter of method, all considerations of metaphysics are separated out at the beginning. It will not be doubted that the descriptive work will be of significance for metaphysics. To begin with, it has immediate consequences for that type of metaphysics which operates with unclarified basic concepts and principles. Much is sure to be swept away in this way. Positively, the characteristic concepts of metaphysics, such as being, reality, object, etc., are clarified in a preliminary way by being referred back to the rudimentary level of experience from which they first derive their sense. A constructive metaphysics may be served in this way, just as it is served by logic. The analyses of the structure of experience and thought are not only found to be of value for psychology, for example, as providing an essential basis and conceptual framework for empirical psychology, but also for philosophy as a whole. But despite arguments that have been

advanced, the subjectivistic approach does not eventuate in solipsism or spiritualism.

Mention has frequently been made of different types of phenomenology, notably the neutral, idealistic, and realistic varieties. The term "neutral" is a prejudging expression if it is taken to assume the validity of the metaphysical positions in question. If it means simply a descriptive method with an epoché performed with regard to all metaphysical theses, there is no special point in using the term. It is well understood that all existential judgments have been "neutralized." The discipline that is made possible therewith is meant to precede all questions of metaphysical preference and interpretation.

Husserl disclaimed all other types of philosophy, both idealism and realism in their current forms being declared to be absurd in principle. His "beginning" was advanced as a device which for the first time makes philosophy possible. After his sweeping program of condemnation and construction, he was glad to acknowledge the modesty of his beginning, when compared with the magnitude of the work to be done as a result of it. Despite his repudiation of traditional idealism, he finally defended "transcendental-phenomenological idealism" as a philosophy. At times his language seems to waver, and it is possible to make out a strong case for a purely descriptive philosophy. But the fact remains that there is a marked preference or tendency toward a point of view that may well be the last stronghold of idealism. Passages such as the following[19] admit of a descriptive interpretation, while illustrating this preference: " . . . whereas the real world indeed exists, but in respect of essence is relative to transcendental subjectivity, and in such a way that it can have its meaning as existing reality only as the intentional meaning-product of transcendental subjectivity." And again: "The world has this meaning, whether we are aware of it or not. But how could we ever be aware of it prior to the phenomenological reduction which first brings the transcendental subjectivity as our absolute Being into the focus

of experience?" When the transcendental Ego is spoken of (p. 14) as existing in transcendental description "absolutely in and for itself prior to all cosmic being," which first gains existential validity "in and through it," the terms "in transcendental description" admit of the non-metaphysical interpretation which is here preferred. No other justifiable meaning could be given to the assertion that "I am the ego which invests the being of the world which I so constantly speak about with existential validity, as an existence which wins for me from my own life's pure essence meaning and substantiated validity." In another writing belonging to his last period,[20] in which he speaks of transcendental subjectivity and intersubjectivity, Husserl states that it is from the latter that all that is real derives "the sense of its existence." Objective existence is declared to be essentially "relative," and to owe its nature to "a unity of intention" which is determined by transcendental laws. Here again it is possible—and preferable—to understand the text as referring to the framework of phenomenological analysis, within which everything has meaning only with reference to the knower. There need be no dogma; and such passages, seductive alike to the adherent of idealism and to the hostile critic on the lookout for evidence of defection, may be found to have their legitimate sense from the point of view of the methodological precepts that have been accepted.

Husserl's own belief that the answer to all "legitimate" metaphysical questions was to be provided by phenomenology does not alter the view here set forth, for it is precisely by such a fundamental, preparatory method that the justifiable sense of metaphysical questions may be determined in the first place. The present, strictly phenomenological interpretation is maintained despite some of the arguments that were advanced in his last period.

C. Historical Fact and the Genetic Method.

The ideal of a rigorous science of philosophy has been objected to by Spranger,[21] in whose view this ideal may be considered for pure philosophy, but is not possible when

cultural sciences with empirical contents are concerned. Some of the points he considers have long been familiar: the cultural sciences are bound to the particular historical period in which they arise; the capacity and maturity of the investigator are also to be noted; and all understanding derives consciously or unconsciously from a fundamental world-view attitude. These considerations have by no means been overlooked in the literature of phenomenology. The undeniable truth that all cultural meanings are historically conditioned does not forbid an objective, essential study of them. On the contrary, such a study is necessary for purposes of social science. A description of the relativity of a set of facts is not therefore a "relative" description: the truth about historical change need not be historically changing. If it is found to be incorrect, it was not the truth. To point out that the *content* of the social sciences is changing historically is true, but has no bearing on the question of the possibility of a rigorous science of philosophy. Furthermore, it should be understood that such a science is not intended to displace the factual historical and social sciences. It is intended to serve them, to assist in clarifying their basic concepts and the essential form of knowledge which is needed by sciences of all kinds.

Phenomenology is non-historical if history in the mundane sense is meant. Due to its very nature and aim, however, it is interested in clarifying the origins of meanings. Its attention to "intentional history" indicates its recognition of the historicity of experience. In considering the "origin of geometry" as an intentional-historical problem,[22] Husserl was not interested in determining who were the first geometers, nor was he investigating the propositions they discovered. He was interested rather in "asking back" for "the most original sense in which geometry as a tradition of thousands of years was there, and is still there for us." It is pertinent to ask for the sense in which it must have appeared for the first time in history, even though we know nothing of its first creators. Furthermore, it is possible to suggest an order of abstraction of the ideal forms without regard to the order of the actual facts, which are unknown, but which may well

exemplify the "intentional" order. The phenomenological "genetic" method has meaning within the framework of the phenomenological philosophy. Its difference from the ordinary genetic method is to be traced to the difference between the natural and the pure reflective attitudes, although *qua* descriptive methods they have features in common. Each type of method has its range of achievement. If one of them is able to bear forests on its back, it also turns out that it cannot crack a nut. The natural historical view and the non-natural "genetic" method of analysis have their distinctive functions and powers. The latter is not "prior" to the former in every sense. Which one is prior to the other depends upon the question at issue, whether ideal-essential or temporal-causal, for example.

D. The Phenomenological Movement.

The recognition and pursuit of phenomenological analysis do not require blind adherence to any individual philosopher. It may well occur that the painstaking investigator, or the logical critic, will find himself unable to follow the founder of phenomenology at times, in the name of its guiding principles. Moreover, the author of the precept "Back to the things themselves!" never intended to found a sect. The "things themselves," the objective states of affairs, are to decide us. There are no "sacred writings." The development of this philosophy illustrates a quest for truth, a cumulative growth throughout, with numerous changes and a gradual deepening of understanding.

Phenomenology is perhaps the least understood of current philosophical tendencies. Husserl could say with justification that this philosophy is still really unknown, despite the international influence exerted by his writings. The growing expository and critical literature should do much to meet a real need. Renewed attention is now being devoted to the work of the leading members of the broader phenomenological movement, including Scheler, Pfaender, Geiger, Reinach, Heidegger, and others. The literature of phenomenology includes studies in a diversity of fields—psychology, psychia-

try, logic, philosophy of mathematics, law, social science, philosophy of art, ethics, and philosophy of religion. There is no general unanimity in this literature, in which the response to mixed motives and the danger of irrationalism is illustrated. Despite that fact, it may be said that if phenomenology is at all successful in establishing philosophy on the secure foundation of immediate experience, it must be recognized as providing the foundation for all scholarship in a most important respect. No program for the unity of science can afford to ignore this work.

The phenomenological philosophy is forward-looking in its program. The large amount of work already performed is sufficient to justify its demand for an unbiased and thorough hearing. The result is sure to be a more widespread appreciation and application, both of the results already achieved and the method itself for further investigations.

1. Thus Dilthey wrote: "History must be asked what philosophy is. It shows the change in the object, the differences in method; only the function of philosophy in human soicety and its culture is preserved in this change." Cf. Wilhelm Dilthey's *Gesammelte Schriften,* vol. VII, Leipzig, 1931, pp.204 ff.

2. Carnap's judgment that most philosophy is poetry would not have been subscribed to by Schopenhauer, who observed that works of poetry can coexist peacefully like lambs, whereas philosophical works are born wild animals. Cf. Schopenhauer, *Werke,* vol. VI, "Ueber Philosophie und ihre Methode," Leipzig, 1887, p. 5.

3. Edmund Husserl, 1859-1938, taught in the universities of Halle, Goettingen, and Freiburg. Through his effective teaching as well as his widely read writings his influence has become world-wide.

4. Vol. I, 1910.

5. Cf. his *Formale und transzendentale Logik,* Halle, 1929, for example.

6. Cf. E. Husserl, *Logische Untersuchungen,* vol. II, 1, §1.

7. Cf. Husserl's preface to his *Ideas.*

8. Cf. Ideas, Sec. I.

9. Cf. E. Husserl, "Phaenomenologie und Anthropologie," *Philosophy and Phenomenological Research,* vol. II, No. 1. (Sept., 1941).

10. Cf. *Ideas,* Sec. III, ch. 3.

11. Cf. *Ideas,* p. 225.

12. Cf. *ibid.,* p. 13.

13. Cf. *Ideas,* p. 234.

14. To illustrate Husserl's usage, consider the following passages from the *Erfahrung und Urteil* (pp. 288, 306 f.): "Every predicative judgment (that

is closed in itself) . . . pre-constitutes in itself a new objectivity, a fact. This is 'what it judges' . . . it itself is an object and with respect to its genesis it is a logical object or an object of the understanding." "Let us proceed to the individual space-objectivities, natural objectivities, which are constituted out of them (sensory objects) through apperception. They are constituted mediately through apperception out of sensory givennesses. The sense-data do not belong in the constituted space-world, nor do their determinations of content or of time. But all these determinations serve as apperceptive representatives. The apperceptions are intuitions and enter into connection with one another; they form the unity of an intuition, of a natural experience. The 'matter' of the space-thing is constituted thereby as an apperceptive (constitutive) unity of the temporal matter of the representing data; the space-form, through the apperceptive unity of its sensory-local distinctions; and the apperceived or objective time through the apperceptively constituted unity of the sensory temporality (as a representative). If therefore objects are constituted sensuously, in original constitution, although mediately, namely in the manner of 'physical' spatial objects, in such a way that immediate sensory objects serve with the immediate constititive immanent time belonging to them as apperceptive representatives for apperceived objects of a higher level, then an 'objective' apperceived time accrues to them through apperceptive representation of an immanent time . . . . "

15. In addition to concrete studies recorded in works already cited, special mention should be made of E. Husserl's *Vorlesungen ueber die Phaenomenologie des inneren Zeitbewusstseins* as an illustration of descriptive analysis.

16. Cf. *Erf. u. Urt.*, Sec. I.

17. Cf. *ibid.*, pp. 410 ff.

18. Cf. *ibid.*, p. 8.

19. Cf. *Ideas*, p. 21.

20. Cf. the article on phenomenology in *Encyclopaedia Britannica,* 14th ed.

21. Cf. Eduard Spranger, "Der Sinn der Voraussetzungslosigkeit in den Geisteswissenschaften," *Sitzungsberichte der Preussischen Akademie der Wissenschaften,* Berlin, 1929, pp. 10 ff.

22. Cf. E. Husserl, "Die Frage nach dem Ursprung der Geometrie," *Revue internationale de Philosophie,* vol. I, Jan., 1939; and Dorion Cairns' review of this study in *Philosophy and Phenomenological Research,* vol. I, no. 1, (Sept., 1940). Cf. also Fritz Kaufmann's discussion of phenomenology and history, latter journal, Dec., 1941.

SELECTED BIBLIOGRAPHY

1. The chief published works of EDMUND HUSSERL:

Philosophie der Arithmetik, Halle, 1891

Logische Untersuchungen, Halle, 1900-1901; revised edition, 1913-1921

Ideen zu einer reinen Phaenomenologie, Halle, 1913 (English translation by Boyce Gibson: *Ideas*)

Vorlesungen zur Phaenomenologie des inneren Zeitbewusstseins, Halle, 1928
Formale und transzendentale Logik, Halle, 1929
Méditations Cartésiennes, Paris, 1932
Die Krisis der europaeischen Wissenchaften und die transzendentale Phaenomenologie, Part I, *Philosophia,* vol. I, 1936
Erfahrung und Urteil, Prague, 1939

2. Literature in English:
Philosophical Essays in Memory of Edmund Husserl, containing expository and critical essays by representative members of the phenomenological movement, edited by Marvin Farber, Harvard University Press, 1940
The Foundation of Phenomenology, by Marvin Farber, Harvard University Press, 1943
Philosophy and Phenomenological Research, a quarterly journal, official organ of the International Phenomenological Society, published by the University of Buffalo, Buffalo, New York

3. Other Phenomenological Literature:
Jahrbuch für Philosophie und phaenomenologische Forschung, edited by E. Husserl in cooperation with M. Geiger, M. Heidegger, A. Pfaender, A. Reinach, and M. Scheler, eleven volumes, Halle, 1913-1930

LOGICAL EMPIRICISM

By Herbert Feigl

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POSITIVISM, NOT NEGATIVISM

PROBABLY THE MOST decisive division among philosophical attitudes is the one between the worldly and the other-worldly types of thought. Profound differences in personality and temperament express themselves in the ever changing forms these two kinds of outlook assume. Very likely there is here an irreconcilable divergence. It goes deeper than disagreement in doctrine; at bottom it is a difference in basic aim and interest. Countless frustrated discussions and controversies since antiquity testify that logical argument and empirical evidence are unable to resolve the conflict. In the last analysis this is so because the very issue of the jurisdictive power of the appeal to logic and experience (and with it the question of just what empirical evidence can establish) is at stake.

It seems likely that this situation in philosophy will continue as long as human nature in its relations to its cultural environment remains what it has been for the last three or four thousand years. The tough-minded and the tender-minded, as William James described them so brilliantly, are perennial types, perennially antagonistic. There will always be those who find this world of ours, as cruel and deplorable as it may be in some respects, an exciting, fascinating place to live in, to explore, to adjust to, and to improve. And there will always be those who look upon the universe of experience and nature as an unimportant or secondary thing in comparison with something more fundamental and more significant. This tendency of thought may express itself theologically or metaphysically. It may lead to a faith in extra-mundane existence, or it may in various attenuated fashions assert

merely the supremacy of some rational or intuitive principles.

Empiricism, Skepticism, Naturalism, Positivism, and Pragmatism[1] are typical thought movements of the worldly, tough-minded variety. Respect for the facts of experience, open-mindedness, an experimental trial-and-error attitude, and the capacity for working within the frame of an incomplete, unfinished world view distinguish them from the more impatient, imaginative, and often aprioristic thinkers in the tender-minded camp. Among the latter are speculative metaphysicians, intuitionists, rationalists, and absolute idealists. An amusing anecdote concerning two celebrated contemporary philosophers has become widely known. One considers the other muddle-headed and the other thinks the one simple-minded. This fairly epitomizes the history of philosophy, that grandiose "tragicomedy of wisdom."[2] Plato and Protagoras, St. Thomas and William of Ockham, Spinoza and Hobbes, Leibniz and Locke, Kant and Hume, Hegel and Comte, Royce and James, Whitehead and Russell are in many regards, though of course not in every feature, outstanding examples of that basic difference.

Inasmuch as this divergence of attitudes establishes a continuum of positions between extremes, there is also among the tough-minded thinkers a gradation of shades from a nominalistic, pan-scientific radicalism to a more liberal, flexible form of empiricism. Typical among the radicals is the use of the phrase "nothing but." We are familiar with this expression from earlier doctrines, such as *materialism*: "Organisms are nothing but machines." "Mind is nothing but matter." "The history of ideas is only an epiphenomenon of the economic processes." We also know it from *phenomenalism*: "Matter is nothing but clusters of sensations." Or from *nominalism*: "Universals are mere words." Or from *ethical skepticism* and *relativism*: "Good and evil are no more than projections of our likes and dislikes."

One of the great merits of logical empiricism lies in the fact that it is conscious of the danger of these reductive fallacies. It may not always have been able to avoid them. A

young and aggressive movement in its zeal to purge thought of confusions and superfluous entities, naturally brandishes more destructive weapons than it requires for its genuinely constructive endeavor. But that is a socio-psychological accident which in time will become less important. The future of empiricism will depend on its ability to avoid both the *reductive* fallacies of a narrowminded positivism—stigmatized as *negativism*—as well as the *seductive* fallacies of metaphysics. Full maturity of thought will be attained when neither aggressive destruction nor fantastic construction, both equally infantile, characterize the philosophic intellect. The alternative left between a philosophy of the "Nothing But" and a philosophy of the "Something More" is a philosophy of the "What is What." Thus an attitude of *reconstruction* is emerging: an attitude which recognizes that analysis is vastly different from destruction or reduction to absurdity, an attitude that is favorable to the integration of our knowledge, as long as that integration is carried on in the truly scientific spirit of caution and open-mindedness. The reconstructive attitude demands that we describe the world in a way that does not impoverish it by artificial reductions, and it thus requires that we make important distinctions wherever there is an objective need for them. But, on the other hand, the empiricist will with equal decision reject wishful thinking of all sorts, the reading into experience of features which are incapable of test and the multiplication of entities beyond necessity.

It would be puerile optimism to hope that out of such revision and reform should grow a generally accepted philosophy to end all philosophies. But what may seem questionable as an historical prediction may yet be justifiable as a working attitude in a living enterprise. The spirit of enlightenment, the spirit of Galileo, of Hume, and of the French Encyclopedists is fully alive again in the contemporary encyclopedists of a unified science. These modern logical empiricists, hope to have freed themselves from the naiveté and dogmatism of the various nineteenth century materialists and monists. They are conscious of their philosophy's role as

a turning point in the history of critical thought. Nevertheless, they do not claim originality, for they are aware that the empirical and analytic trend in philosophy is no less persistent than the speculative and intuitive approach, though it is admittedly less spectacular and popular. The tradition they now represent has centered its chief inquiries around the two humble questions, "What do you mean?" and "How do you know?" The systematic pursuit of meaning by the Socratic method and the searching scrutiny of the foundations of knowledge are thus again declared the genuine task of philosophy, a task which differs from the quest for truth as carried on by science and yet is most intimately related to it.

Neither the construction of a world view nor a vision of a way of living is the primary aim. If through the progress of knowledge and through social, political, and educational reform one or the other objective is pursued, philosophy in its critical and clarifying capacity may aid or guide such developments. But it cannot, by mere reflective analysis, *prescribe or produce* them. Quackish and dilettantish projects in both directions have always been abundant and cheap in the market of ideas. The main contribution that philosophical reconstruction can make in this regard lies in the direction of an education toward maturer ways of thinking, thinking which possesses the virtues characteristic of science: clarity and consistency, testability and adequacy, precision and objectivity. Immature attitudes are associated with attempts to explain experience in ways which lack the distinguishing marks of science. Certain of these pre-scientific modes of explanation, like the magical, the animistic, and the mythological, are nearly defunct; others, like the theological and the metaphysical, still prevail.

Throughout its history philosophy has been the particular stronghold of verbal magic. By purely verbal means it has tried to explain things which only science could explain or which cannot be explained at all. In the process it creates its own perplexities, and at its worst it attempts the "solution" of these pseudo-problems—problems arising only out

of linguistic confusion—by means of pseudo-techniques—more verbal magic. Analysis teaches us that all this is altogether unnecessary. Thus, if a little levity be permitted, we may define philosophy as the disease of which it should be the cure.

THE ANALYSIS OF LANGUAGE AND THE MEANINGS OF "MEANING"

THE SYSTEMATIC PURSUIT of the problem of meaning by means of a logical analysis of language distinguishes Logical Empiricism from the earlier, more psychologically oriented types of Empiricism, Positivism, and Pragmatism. The imperative need for a logic of language was impressed upon scientists and logicians most poignantly in the last few decades. Just as the seminal ideas of some nineteenth-century philosophies originated in a scientific achievement (Darwin's theory of evolution) so twentieth-century Logical Empiricism was conceived under the influence primarily of three significant developments in recent mathematics and empirical science. These are the studies in the foundations of mathematics (led by Russell, Hilbert, and Brouwer), the revision of basic concepts in physics (advanced especially by Einstein, Planck, Bohr, and Heisenberg) and the reform of psychology by the behaviorists (Pavlov, Watson, et al). Though very different in context and subject-matter, these three developments focussed attention on the necessity for an inquiry into the limits and structure of meaningful discourse. Russell, through his discovery of logical and mathematical paradoxes, could show that traditional logic had to be revised and that certain laws, like his rule of types, had to be incorporated in logic in order to avoid inconsistencies in the very foundations of mathematics. Einstein, in his analysis of the electrodynamics of moving bodies, was led to a most revolutionary critique of such basic concepts as simultaneity, length, duration, and mass. Thus he showed that the traditional phraseology of "absolute space" and "absolute time" was in certain important respects devoid of the factual meaning it was supposed to possess. Analogous revisions of basic concepts, touching

also on the principle of causality, resulted from the elaboration of the theory of quanta. Finally, by developing objective procedures for the study of mental life, the behaviorists made us aware of the fact that all of the scientific content of psychology can be formulated in the physical language[3] and that the assumption of a "something more," a surplus of factual meaning attached to mentalistic terminology, is an illusion. (Earlier reductive naivités were gradually eliminated here, as elsewhere.)

Whatever the future of mathematics, physics, and psychology may decide about the theoretical content of these recent ideas, we have, in any case, been awakened once for all to the need for logical analysis, and we have been witnesses to the fruitfulness of its results.

Three disciplines are being developed to carry out this task of clarifying language and meaning. *Pragmatics* investigates the functions of language in its full biological, psychological, and sociological setting. Here language in its relation to behavior is the primary object of study. By two successive steps of abstraction the disciplines of *semantics* and *syntax* are arrived at. Semantics analyzes the meaning of terms and expressions. Its studies center about the relation of designation and the concept of truth. While pragmatics is interested predominantly in the expression and appeal function of language, semantics explores the symbolic or representative aspect of language. Syntax, finally, ignores even the meaning-relation and studies exclusively the connections of linguistic signs with each other. It systematizes the purely formal, structural rules for the formation of sentences and the transformation rules of logical derivation.

Granting that language as used in common life serves in a fusion or a combination of various functions, it would seem imperative that some sort of theoretical separation of functions be undertaken for the sake of greater clarity and the avoidance of confusion. The list below is the result of such an analysis. Among the dozens of meanings of "meaning" we shall enumerate only those which are of prime importance for philosophical purposes.

THE FUNCTIONS OF LANGUAGE, OR THE MEANINGS OF "MEANING"

Cognitive meanings (Informational function)	Non-cognitive meanings (Emotive expression and appeal function)
Purely formal	*Pictorial* (*Imaginative*)
Logico-arithmetical	*Emotional* (*Affective*)
Factual (=*Empirical*)	*Volitional-motivational* (*Directive*)

This table, correctly understood and properly used, is a powerful tool in the disentanglement of the traditional puzzles of philosophy. Many metaphysical "problems" and their "solutions" depend upon the erroneous presumption of the presence of factual meaning in expressions which have only emotive appeals and/or a formally correct grammatical structure. And many an epistemological question has been obscured by mistaking logico-mathematical for factual meanings. It is such confusion or erroneous pretense that is exposed to criticism on the basis of our table of meanings. No evaluation of the functions of language as such is implied. Emotive appeals are indispensable in the pursuits of practical life, in education, in propaganda (good or bad), in poetry, in literature, in religious edification and moral exhortation. Some of the highest refinements of our civilized existence depend upon the emotional overtones of spoken and written language.

However, Logical Empiricism as an approach in the theory of knowledge is primarily concerned with *cognitive* meanings. It avoids the errors of the psychologistic approach by the sharp distinction between the pictorial connotations of words, i. e., the imagery that accompanies their use, and the syntactical-semantical *rules* that govern their use. The meaning of words, then, or of signs quite generally, consists in the way in which they are used, the way they are connected with other words or related to objects of experience. The *definition* of a term, the declaration of its meaning, amounts to a

statement of the rule according to which we employ or intend to employ the term. Dictionary definitions are translations of relatively less familiar into relatively more familiar expressions; the meaning of the latter is presupposed. Logical analysis, however, pushes beyond these familiar terms of common language. By stepwise procedures all terms are reduced to a comparatively small number of basic or primitive terms. Though further verbal definition is then still possible—no term can be said to be "indefinable"—to continue the process may turn out to be unenlightening and hence fruitless. At this point we must connect language with something outside of language, with experience. Thus in all full definitions of empirical terms there is a terminal ostensive step as an indispensable ingredient. In contradistinction to this, the symbols of purely logical or mathematical systems are introduced (i. e., whatever meaning they have is defined) by relating them only to each other by formal rules. In applied mathematics, as in every language with empirical reference, these purely formal or syntactical rules are supplemented by semantical rules that correlate at least some of the symbols with items of experience.

Philosophical or logical analysis, in the sense of a clarification of the meaning of language, differs from *philological* analysis in at least three important respects. First, logical analysis concentrates on terms of basic importance for the representation of knowledge. The more general these terms the greater is the danger of various confusions due either to unclarity in type of meaning or simply to vagueness or ambiguity of meaning. Hence the necessity and the value of such an analysis as a therapeutic measure. Second, the logical reconstruction is independent of the grammatical (and a *fortiori* the emotive) peculiarities of the specific language, living or dead, in question. Inasmuch as it is the cognitive meanings that we are interested in, idealized models, or in the extreme limit, an ideal language (something in the direction of Leibniz' Mathesis Universalis) may be used. The tools developed in modern symbolic logic prove of utmost value for this purpose. Third, logical analysis is usually *directed* an-

alysis. That is to say, it is either *postulational codification* (as in the mathematical and the exact empirical sciences) or *epistemological reduction* (the reconstruction of factual terms and propositions on a basis of observational evidence).

A characteristic difference between two types of procedure in logical analysis is worth observing. Wittgenstein, very much like G. E. Moore before him, and like the English analytic school on the whole, pursues the Socratic task in a casuistic fashion; individual confusions are subjected to elucidation. It is the specific case that is treated, and the general theory of the treatment is not elaborated systematically. Carnap and his followers, on the other hand, proceeded with the development of a complete system, very much like Whitehead and Russell in *Principia Mathematica.* A whole system is set up, and the theory of the machinery fully set forth. In the course of later developments this difference in procedure became associated with another one; in their choice of a basis for logical reconstruction, Wittgenstein, followed by Schlick, Waisman, and others, remained experientialistic, whereas Neurath, Carnap, Hempel, and others became physicalistic.

THE CRITERION OF FACTUAL MEANING AND THE CRITIQUE OF METAPHYSICS

THE MOST IMPORTANT, the most widely debated, and, unfortunately, the most frequently misunderstood regulative principle used by Logical Empiricism is the criterion of factual meaningfulness. The purpose of this criterion is to delimit the type of expression which has possible reference to fact from the other types which do not have this kind of significance: the emotive, the logico-mathematical, the purely formal, and—if there should be such—the completely nonsignificant.

If it is the ostensive steps that connect a purely formal array of signs (e. g. words) with something outside of language, no sign or combination of signs can have factual

meaning without this reference to experience. Furthermore, if a sentence is considered true when it corresponds to an existing state of affairs, a sentence is factually-meaningful only if we are in principle capable of recognizing such states of affairs as would either validate or invalidate the sentence. If we cannot possibly conceive of what would have to be the case in order to confirm or disconfirm an assertion we would not be able to distinguish between its truth and its falsity. In that case we would simply not know what we are talking about. C. S. Peirce's pragmatic maxim, formulated in his epoch-making essay, *How to make our ideas clear,*[4] has essentially the same import. We may paraphrase it crudely: A difference that is to be a difference (i. e., more than merely a verbal or an emotive one) must *make* a difference. Or, a little more precisely: If and only if assertion and denial of a sentence imply a difference capable of observational (experiential, operational, or experimental) test, does the sentence have factual meaning. Another useful formulation is Ayer's[5]: "It is the mark of a genuine factual proposition . . . that some experiential propositions can be deduced from it in conjunction with certain other premises without being deducible from these other premises alone." This is simply empiricism brought up to date. The psychologistic formulations, an example of which may be found in Hume (ideas must have their basis and origin in impressions), are replaced by logical ones. The most helpful exposition of these concepts for physical scientists was given by P. W. Bridgman.[6] Realizing the close relationship between knowledge and action, or as Dewey would put it, the place of meaning in the context of inquiry, he asks by what procedures we decide the validity of our assertions. Thus Bridgman maintains that concepts and assertions are meaningless if no operations can be specified that define the former and test the latter.

It was, however, a typical reductive fallacy on the part of Auguste Comte to rule out as meaningless such a question as that concerning the chemical constitution of the stars because at that time no procedure was known to answer that ques-

tion. Of course we can hardly blame him for not having conceived of spectroscopy before Bunsen and Kirchhoff developed it, yet even in Comte's day it should have been clear that the impossibility of solving that problem was neither a physical nor a logical one. It was a technical-practical difficulty of the sort that may have a bearing on the fruitfulness of an inquiry but certainly not on the meaningfulness of a question. Similar reductive fallacies are inherent in the insistence of some of the more radical positivists that only *directly* and *completely* verifiable or refutable sentences are factually meaningful. Although most of these thinkers never intended as drastic a restriction of meaningful discourse as they were accused of doing in effect,[7] it seems terminologically more convenient today to classify as factually-meaningful all sentences which are in principle capable of being confirmed or disconfirmed, i. e., capable of at least indirect and incomplete test.

Thus in a general classification of sentences and expressions we distinguish today: (1) Logically true sentences, also called analytic sentences. (2) Logically false sentences, also called contradictions. These sentences are true or false, respectively, by virtue of their form. Even if descriptive empirical terms are contained in them they function only 'vacuously', and their factual reference is irrelevant to the validity of the sentence. (3) Factually true and (4) factually false sentences whose validity depends upon their correspondence to observed fact. In the majority of instances this correspondence or non-correspondence is only incompletely and indirectly indicated by whatever is immediately observable. Therefore these sentences are usually not *known* to be true or false but are considered to be confirmed or disconfirmed to an extent which may vary considerably with the accumulation of favorable or unfavorable evidence. (5) Emotive expressions without cognitive meaning and the emotive components of otherwise cognitive expressions. Pictorial, figurative, and metaphorical expressions, exclamations, interjections, words of praise or blame, appeals, suggestions, requests, impera-

tives, commands, questions, and prayers belong to this category. Even in definitions we recognize a motivational element: the resolution or invitation to use a term in a certain way.

In the light of the preceding distinctions, we may say that an expression is devoid of empirical meaning (i. e., of factual reference) or, briefly, is *factually-meaningless,* if it belongs to any one or several of the following five groups: (a) Expressions violating the syntactical formation-rules of a given language; (b) Analytic sentences; (c) Contradictory sentences; (d) Sentences containing extra-logical terms for which no experiential or operational definitions can be provided; (e) Sentences whose confirmability, i. e., even indirect and incomplete testability-in-principle, is logically excluded by the assumptions of the system of which they are a part.[8]

As indicated above, the positivistic critique of metaphysics is primarily an attack upon confusions of meanings and is not intended as a wholesale repudiation of what has been presented under that label. In point of fact, "metaphysics" has been used in such a wide variety of ways that here also a little logical analysis of meanings is indispensable. The customary definitions of metaphysics as the discipline concerned with "first principles" or with "reality as a whole" are not illuminating as long as the methods of procedure remain unspecified. From the point of view of method, then, we may distinguish intuitive, deductive, dialectical, transcendental, and inductive metaphysics.

To take the last-mentioned first, we may say that inductive metaphysics, in the sense of a speculative cosmology derived by extrapolation from scientific evidence and scientific theory, need not contain factually-meaningless elements at all. There is no sharp line between the inductive generalizations of common sense and science on one side and those of cosmology on the other. It scarcely needs to be mentioned that metaphysics in *this* sense, though *logically* unassailable, is open to criticism from the point of view of the criteria of adequacy and precision, reliability and fruitfulness. Conjectures regarding the heat-death of the universe, the origin of life, and

the future of evolution may be perfectely meaningful. But anyone with even a superficial acquaintance with scientific method will realize how uncertain and vague these guesses must be. Occasionally they may be valuable as suggestions for new approaches in scientific research, but with the exception of a few notable instances like the ancient atomic hypothesis, they are apt to remain barren, if not actually misleading. Inductive metaphysics is thus merely the risky, sanguine, disreputable extreme of science.

The critique of meaning, however, applies with full force to the other approaches in metaphysics. *Deductive* metaphysics indulges in the rationalistic practice of producing factual conclusions of a relatively specific character from a few sweepingly general (and often completely vague) premises. It thus misconstrues the nature of logical derivation and is guilty of a confusion of logical with factual meaning. Similarly, dialectical metaphysics, especially the Hegelian, confuses what may—most charitably interpreted—appear as a psychological thought-movement or as a form of historical processes with the logical forms of inference. Intuitive metaphysics, convinced of the existence of a privileged shortcut to "Truth," mistakes having an experience for knowing something about it. Then, too, it is habitually insensitive to the distinction between pictorial and emotional appeals and factual meaning. Finally, transcendental metaphysics in its attempt to uncover the basic categories of both thought and reality may turn out to be nothing else than an unclear combination of epistemology and cosmology, which is then dignified with the name "ontology." It could thus be salvaged and restated in purified form. But it is precisely in ontology that we find the greatest accumulation of factually-meaningless verbalisms. Speculations concerning the "Absolute," even if not entirely devoid of empirical components, generally contain an ample measure of "absolutely" untestable pseudo-propositions. The customary excuse that further experience or reasoning will validate these ideas has no bearing on the question of meaningfulness. The most a patient empiricist

can do here is to hope that doubtful promises to define empirically the terms, used so far only emotively, will sometime be fulfilled. But until that happens, the empiricist will fail to attach any glimmering of factual-meaning to the metaphysic which rotates about these terms.

To the empiricist one of the most gratifying trends in the history of science is the gradual liberation of theory from metaphysical bondage. The ideas of absolute space, time, and substance, of numbers as real entities, of the cause-effect relation as an intrinsic necessity, of vital forces and entelechies, and of all manner of obscure faculties and mythical powers have gradually disappeared from respectable science as it was seen that they were either ad hoc explanations or samples of verbal legerdemain or both. One incident in this process of growing epistemological sophistication must suffice for illustration. When after many experiments (Fizeau, Michelson-Morley, de Sitter, Trouton-Noble) physicists realized that it was hopeless to look for effects of the universal ether upon moving bodies, some of them were nevertheless not ready to give up the ether hypothesis. H. A. Lorentz, certainly one of the greatest physicists, pardoned the ether of its undiscoverability by postulating an ingenious set of assumptions, which jointly guaranteed that whatever effects might be produced by the ether, such effects would be exactly cancelled by other counter-effects. Einstein very soon afterwards realized that by this token the stationary-ether hypothesis had become not only scientifically superfluous but strictly meaningless as well. An essentially similar situation prevailed long before in the Newton-Leibniz controversy regarding absolute space and time in which Leibniz used arguments very much like those of the modern pragmatists and positivists.

A word of warning should not be amiss here. The danger of a fallaciously reductive use of the meaning-criterion is great, especially in the hands of young iconoclasts. It is only too tempting to push a very difficult problem aside and by stigmatizing it as meaningless to discourage further investi-

gation. If, for example, some of the extremely tough-minded psychologists relegate questions such as those concerning the instincts, the unconscious, or the relative roles of constitution and environment to the limbo of metaphysics, then they cut with Ockham's razor far into the flesh of knowledge instead of merely shaving away the metaphysical whiskers. No meaningful problem is in principle insoluble, but there is no doubt that the human race will leave a great many problems unsolved.

THE LOGICAL ANALYSIS OF EMPIRICAL KNOWLEDGE

THE QUESTION "How do we know?" presupposes the question "What do we mean?", and in the pursuit of both these questions we find ourselves urged to reconstruct our knowledge and to justify its truth-claims on a basis of observational evidence. Not the origin and psychological development of knowledge but its logical structure and empirical validation are the subject of a thus reformed epistemology. The psychology of knowledge (from the experimental study of discrimination behavior on the animal level to the scarcely begun investigation of the higher creative thought processes on the human level) is, after all, only one among the sciences and, therefore, itself one of the subjects of epistemological analysis.

As we shall deal with logical and mathematical knowledge somewhat more fully in the next section, only a few words are necessary to delimit it from empirical knowledge. A pair of Kant's distinctions, though not his philosophy as it elaborates them, are most helpful here. He distinguished between analytic (i. e., true by definition) and synthetic (i. e., factual) sentences and between apriori (i. e., logically independent of experience) and aposteriori (i. e., empirical) validity. All forms of empiricism agree in repudiating the existence of synthetic apriori knowledge. Here the logical empiricists differ from the pre- and the post-Kantian rationalists, from Kant and the Neo-Kantians, as well as from Husserl, the phenomenologists, and the English intuitionists. Logical Empiricism, with Hume and Leibniz, places both

mathematical knowledge and formal logic in the class of analytic and hence apriori truth. In this respect, Logical Empiricism differs from the extreme empiricism of Mill, who considered mathematics and most of logic synthetic aposteriori. We agree with Mill, however, in the statement that all factual knowledge depends for its validity upon confirmation by experience.

As a consequence of all this, the concept of truth is disclosed to be ambiguous. In mathematical knowledge truth amounts to accordance with the formal (syntactical) definitions, the postulates, of the system. In the factual context it means accordance with the empirical definitions, the semantical rules. Thus we call a sentence true if its terms are so applied to fact that none of the designation-rules of the language in question are violated. Error, whatever its source may be (illusion, misinterpretation of evidence, or only misspeaking), simply consists in the disrupting of the one-to-one or many-one correspondence between the terms in the sentence and their referents, i. e., the constituents of the facts described. This version of the "correspondence" view of truth has none of the psychologistic inadequacies of the earlier "copy" or "picture" versions.

Yet we are guilty here of one gross oversimplification, if not distortion, of the actual situation. We presupposed that sentences can simply be confronted with the states of affairs which they claim to represent. At best, this is the case for the sentences describing facts of direct observation, and even this has been seriously disputed by many a full-fledged empiricist. But whatever the status of these basic observational (or "protocol") sentences may be, it is obvious that most of our knowledge, and especially almost all of the more interesting and important part of it, is highly indirect. It is shot through with interpretation, construction, and inference, and consequently is dependent on very general assumptions. It is here that empiricism finds itself confronted with what is traditionally considered to be its greatest problem: the validity of inductive inference and the meaning of probability.

All attempts to "justify" inductive inference on rational, empirical, intuitive, or probabilistic grounds have turned out to be utter failures. Hume's critique stands still unshaken. If all apriori knowledge is analytic, then we cannot deduce a synthetic assertion, like the principle of the uniformity of nature, from apriori premises. And if we try to validate induction on the basis of its certainly eminent success in the past, we are simply making an induction about induction and thus presuppose the very principle we set out to prove. Similarly question-begging are the intuitive and probabilistic approaches. Both must assume that the samples of the world immediately experienced or statistically observed are fair samples, thereby relying also on an implicit premise of uniformity. In the same manner, Kant's ingenious twist of a transcendental deduction depends tacitly upon the constancy of the categories as embedded in our mental organization.

Logical Empiricism cuts the Gordian knot by bluntly asking the question, "What can *'justification'* possibly mean here?" And the surprisingly simple answer is that the only clear meanings of that term in common life and science are *deductive proof* for one thing and exhibition of *inductive evidence* for another. The "great problem of induction," therefore, consisted in the impossible demand to justify the very principles of all justification. If we must have a Principle of Induction, though, it had better be formulated not as a piece of knowledge but as a rule of procedure. As such it turns out to be a tautology with an added directive appeal: If you wish to discover reliable laws, you must try, try, and try again to generalize from a maximum of past experience and as simply as feasible. Then, if there is an order in nature, not too deeply hidden or too complicated, you will find it.

In this manner we are able to avoid the skeptical and psychologistic features of Hume's animal faith doctrine. Anxious to avert metaphysical pseudo-solutions, Hume concluded with a reductive fallacy by declaring inductive inference irrational. Here even the illustrious Hume created a pseudo-problem by a misuse of terms. In ordinary language we call a person "rational" if he is capable of learning from experi-

ence. Thus "rationality" does not even predominantly mean logicality in the narrower sense of formal consistency. The procedure of induction, therefore, far from being irrational, defines the very essence of rationality. The stubborn but misguided demand to know what we really don't know (or don't know yet) is perhaps only one of the expressions of an infantile quest for certainty.

A very similar, albeit somewhat more complex, group of confusions underlies the even more hotly argued issues of *the reality of the external world* and *the existence of other minds.* Reductive and seductive tendencies have dominated the scene here as elsewhere. Phenomenalists and subjective idealists, who rightly observe that knowledge must remain within the scope of experience (but note how vague that is), arrive at the conclusion of the immanence of the world within the human mind. (Any need to emphasize how absurd that is?) And metaphysical realists on the other hand, soundly maintaining that human experience is part and parcel of nature (very vague again), define the relation of subjective experience to the objective world in such a way that our knowledge of that world becomes something of a mystery, if not an outright impossibility. This has the logical result of making statements about the world by definition incapable of test. Analogous positions are taken in regard to the existence of "other minds."

Empirical Realism, held by most logical empiricists, removes the meaningless and the absurd elements from the contending philosophies in order to arrive at a reconstruction of common sense and sanity via a clarification of the meanings of "reality." The term "real" is employed in a clear sense and usually with good reason in daily life and science to designate that which is located in space-time and is a link in the chains of causal relations. It is thus contrasted with the illusory, the fictitious, and the purely conceptual. The reality, in this sense, of rocks and trees, of stars and atoms, of radiations and forces, of human minds and social groups, of historical events and economic processes, is capable of

empirical test. But many philosophers do not seem to be satisfied with this empirical concept of reality. They have not learned James' lesson, according to which "things are what they are known as" (or as we would rather more cautiously say: "The only meaningful way to speak about things is in terms of what they are know*able* as.") The metaphysicians, especially those from Descartes on, have resorted to an intuitive idea of reality, replete with pictorial and emotional appeals and so incapable of definition as to be almost ineffable. If anywhere, then certainly here, Wittgenstein's famous dictum applies: "Whereof one cannot speak thereof one must be silent." Indeed, the question as to whether anything not given within the range of immediate experience has that same quality or "raw feel" of existence as that which is given—a question which pervades the reality problem—must forever remain undecided. And this must be, not because it surpasses human powers to answer the question but because the very way the terms are used logically excludes any decision whatsoever. To seek an answer is to chase a will-o'-the-wisp.

Empirical Realism may be considered a synthesis of the valid elements in experientialism and naturalism. In asserting that the scope of the natural universe is tremendously wider than the human experience on the basis of which it is known, no illegitimate transcendence is introduced. As long as we do not forget that existential assumptions must be in principle capable of test, though most of these tests are indirect, we remain within the range of the factually-meaningful. The situation in regard to the general realistic framework of knowledge is essentially the same as that in scientific theories; no scientific assumption is testable in complete isolation. Only whole complexes of inter-related hypotheses can be put to the test. In testing one, we rely upon the others and vice versa. So in the outlook of empirical realism we assume certain broad features of the physical world simultaneously with certain hypotheses concerning the process of perception. Each reinforces the presumptive validity of the other.

In the more technical enterprise of a logical reconstruction of our empirical knowledge, certain fundamental choices must be made as to the basis and the logical forms to be employed. In the great tradition of Hume, Comte, Mill, Mach, Avenarius, and Russell, this directed form of analysis consists in a gradual retracing of the validating steps of knowledge to the data of experience. If all psychological considerations are excluded and only logical ones admitted, this results in an analysis of derived terms and sentences as logical constructions erected on primitive terms and sentences which have direct experiential reference. For certain purposes, like the analysis of scientific constructions, it may be unnecessary to push the reduction as far as all that. In order to know the evidential basis of a physical or biological theory, for example, it is usually sufficient to pursue the analysis only to the level of terms designating observable things and their properties. We may therefore distinguish between *experiential* and *physicalistic* bases of reconstruction or, of epistemic reduction. Carnap, utilizing the efficient and adaptable apparatus of symbolic logic, has worked out detailed sketches of such analyses for either reduction basis.

In recent years it has become clear that the reconstruction of the physicalistic basis has some decided advantages, especially in that the feature of the objectivity—or, more precisely, the intersubjectivity—of knowledge is warranted right from the start. In addition, a number of pseudo-problems are thus more effectively forestalled. But whichever basis is chosen, the essential program of all modern empiricist epistemologies can be fulfilled.

Out of these analyses has resulted the thesis of the *unity of science.* The possibility of a reconstruction of all factual sciences on the basis of a common set of root terms, be they experiential or be they physicalistic, enables us to speak of the reducibility of all sciences to a common, unitary, interscientific language. Earlier formulations of this thesis according to which this reducibility was identified with complete logical translatability had to be abandoned as soon as

the logical forms of only indirectly and incompletely testable statements were more closely scrutinized. Common language and to an even greater extent scientific language makes wide use of *dispositional concepts* such as "combustibility," "solubility," "conductivity," etc. Of course, other words besides those ending in "-ity" or "-ility" belong to this class. Such terms as mass, force, heat content, and electrical charge in physics; as valence and ionic concentration in chemistry; and as genotypes, instincts, needs, drives, tendencies, status, tensions, powers, in the biological and social sciences are dispositional in character also. They do not describe immediately observable traits but are, as it were condensed expressions for regularities of events or behavior exhibited under appropriate conditions. Such terms are not *definable* explicitly on the basis of primitive definientia but are, in a technical sense, *reducible to* (or introducible by) observable thing predicates. In the light of these refinements Carnap[9] formulates the thesis of the Unity of Science as follows: "There is a *unity of language* in science, viz., a common reduction basis for the terms of all branches of science, this basis consisting of the very narrow and homogeneous class of terms of the physical thing-language." As we shall point out, this "unity of science" is something much more obvious and assured than the idea or project of a *unitary science* in the sense of an all-comprehensive explanatory system.

THE LOGIC AND METHODOLOGY OF THE FORMAL AND THE FACTUAL SCIENCES

UNDOUBTEDLY, the most significant constructive contributions of the Logical Empiricists are their logical and methodological analyses of scientific procedures and scientific theories. As these contributions, however, are very numerous as well as mostly quite specific and technical, our report about them must remain hopelessly sketchy and oversimplified.

The advocates of the unity of science admit but one sharp dichotomy in the classification of the sciences. They admit and even emphasize the distinction between the formal

sciences (logic and mathematics) and the factual sciences (natural and social). To begin with logic, we may say that the main progress toward its fuller understanding has depended on two developments: the elaboration of the symbolic machinery of mathematical logic and the semantical and syntactical analyses of its meaning and structure. Although many important questions are still controversial, there is virtually no disagreement with the thesis that logic, in the sense of the science of the forms of valid deduction, differs radically from the factual sciences in that it does not provide any information concerning matters of fact. The rules of deduction belong to the internal regulative mechanism of a consistent language. They merely enable us to express in one form precisely what we have already said in another. Logical rules thus guide us in the transition from premises to conclusions. The appearance of genuine novelty in deductive inference is only psychological, because it is due to our incapacity to comprehend in one flash of insight the implications of more complicated sets of premises.

The theorems or laws of logic are analytic sentences—true by virtue of presupposed agreements concerning the meaning of the terms employed. The law of non-contradiction, for example, is inescapably and infallibly true as long as we agree to mean by a "sentence" an expression which is either true or false and as long as we mean by "denial" the conversion of the value "true" into the value "false" and vice versa. This view of the nature of logical laws has been criticized as conventionalistic. It is said to assert that logical laws are a matter of arbitrary decree concerning the use of symbols. Obviously enough, from a purely formal (syntactical) point of view a system of logic is just one calculus among an indefinite number of others. And yet we cannot speak of alternative *logics* in exactly the same sense in which we speak of alternative geometries. The uniqueness of logic seems to depend upon its purpose in the use of language; as long as we wish our language to use unambiguous and consistent designation-rules, we simply must have rules which regulate that definiteness of meaning. Whatever calculus—

two valued, three-valued, or many-valued—we may find adequate for this or that scientific purpose, our determination to employ symbols with constant meanings necessitates the retention of a yes-or-no logic somewhere as, so to speak, the ultimate court of appeal.

On the technical side logic has been developed not only by further extensions and applications of symbolic logic proper, but also by the introduction of meta-languages, i. e., languages about language, for the purpose of syntax and semantics. An earlier, somewhat dogmatic opinion of Wittgenstein's according to which the relation of language to fact can only be "shown" but not linguistically represented was repudiated and the error corrected by the introduction of a well-defined hierarchy of languages. Here, as so often in the progress of science, the invention of a technical device proved most fruitful; by utilizing the so-called arithmetization of syntax (an idea due to Kurt Gödel), it became possible to attack syntactical problems by means of a mathematical algorithm. In the pursuit of these problems Gödel made his epoch-making discovery of the existence of non-demonstrable mathematical theorems. Roughly, what he proved was the essential incompleteness and incompletability of mathematics. Within the framework of the concepts of any given postulate system, providing the system includes only ordinary arithmetic without limitation to the finite, it is always possible to formulate problems which cannot be solved within the framework. This discovery implies an essential modification of outlook upon the earlier positions of the formalistic, logistic, and intuitionistic schools regarding the foundations of mathematics.

In spite of Gödel's revolutionary theorem, some of the earlier rapprochements among these three schools, e. g., as envisaged by Carnap, remain unquestioned. The logistic school is right in its claim that mathematical concepts can be defined in a stepwise manner on the basis of purely logical primitive concepts. The formalistic school is justified in its claim that all mathematical systems, inasmuch as questions of deductive derivation are concerned, can be most fruitfully

dealt with as purely formal symbolic games. And the intuitionist school correctly emphasizes that arithmetic as we usually understand it and use it is neither a purely formal game nor an empirical science but most intimately related to certain fundamental meanings of common language. Intuitionism, however, seems somewhat arbitrary in its limiting of "legitimate" types of mathematical proof to constructive procedures only. In any event, a great deal of work remains to be done in the foundations of mathematics. The fruitfulness and the fascination of the new methods at our disposal are evident in the steadily increasing volume of contributions to this most intricate field.

Clearly distinguished from the studies of pure mathematics are those in the analysis of mathematics as applied in the empirical sciences. While syntactical methods suffice for the investigation of the formal aspects of mathematical systems, semantical methods must be used for the reconstruction of empirically interpreted calculi. The essential ideas have been clear since Einstein, if not since Gauss and Riemann. The question whether a given mathematical system is applicable to the facts of experience acquires definite meaning only if the semantical definitions (rules of designation, "Zuordnungsregeln") which correlate symbols in the calculus with observable or measureable magnitudes are explicitly stated. Careful analyses by Reichenbach and others have applied these critical procedures most fruitfully to the problems of physical geometry as they appear, for example, in the theory of relativity. One result is the insight that not every concept of the formal system need be interpreted in terms of observables. As the advances of recent physics especially indicate, a great many of the theoretical concepts are simply efficient and parsimonious symbolic super-structures designed to connect the observables in a systematic way in order to make them more easily predictable. Therefore, the representation of a theory as a postulate system (i. e. hypothetico-deductive system) becomes an important device in the clarification of the relation between the assumptions of the theory and

the observational data. By setting up a theory as a system of independent (i. e., non-overlapping and non-redundant) postulates, it becomes possible to recognize exactly which part of the theory corresponds to which facts of experience. If, then, due to further observations, the theory has to be modified, it will be clear which part of the theory will be affected. Such talk as indulged in by some speculative scientists, that their theories are "monolithic," in the sense that they can be accepted or rejected only in their totality can thereby be unmasked as prejudice.[10]

The modern empirical outlook also provides an answer in the long-standing controversy concerning the aims and achievements of theoretical science. There is a good meaning of the term "explanation" over against "mere description." Not only *how* things behave and events occur, but also *why* they do so, can be found out by science. If we only avoid the seductive fallacy of confusing scientific empirical explanation with "ultimate," "absolute," "metaphysical" explanation (which turns out to be verbal magic and therefore pseudo-explanation), we realize that the legitimate scientific procedure of that name consists in the deductive derivation of more specific descriptive conclusions from more general assumptions. These assumptions (empirical laws, or on higher levels, theoretical postulates) are considered valid only until further notice. The locus of the "necessity" in the light of which the facts appear when explained, lies neither in the laws as formulated in the assumptions nor in the specific facts described, but exclusively in the relation of logical implication between premises and conclusions. This insight enables us also to avoid the reductive fallacy according to which science is nothing more than description. For description pure and simple gives merely an *account of* but does not *account for* the observed phenomena in the way just elucidated. The related dispute concerning the realistic versus the idealistic interpretation of scientific hypotheses can be resolved by realizing that all fruitful hypotheses are not merely summaries of phenomena already observed but also

inductive anticipations of other phenomena yet to be discovered. This openness of the hypothetical existential constructs, as manifest e. g. in the atomic theory, marks them off clearly from mere abbreviatory mathematical devices such as tensors and matrices.

Reductive and seductive tendencies also dominate the traditional views of causality, probability, teleology, and the mind-body relation. According to the logical empiricist analysis, causality is neither "*mere* regular sequence" nor an "intrinsic bond" but a functional relation between events or magnitudes characterized by a number of testable features such as the homogeneity of space-time, contiguity, (i. e., nearby-action), continuity, simplicity, and so forth. The extent to which strictly deterministic laws are applicable is, of course, an empirical question, and the revolutionary results of quantum mechanics must therefore be taken quite seriously.[11] Statistical or probability laws are neither merely an expression of our ignorance nor preordained regularities in the equalization of chances. They are, rather, generalizations on the basis of observed stabilities of frequencies.

In biology, mechanistic interpretations are typically reductive, while vitalistic views—as it seems, highly seductive—operate with unconfirmable explanations on the basis of extra-physical agents such as entelechies and vital forces. During the long period these theories predominated, we were confronted with the sorry spectacle of two competing views, the first of which is largely false and the second factually-meaningless. Biology cannot overlook the decline of mechanism as a program of comprehensive nature explanation; neither can it, with a pious or superstitious verbalism, dismiss the possibility of a naturalistic explanation of vital processes, methodologically on a par with physics and chemistry and indebted to their continuing advances. The contemporary synthesis goes in the direction of an organismic physical theory which views organisms as intricately structured dynamic systems the parts of which interact in varying types and degrees of mutual and environmental dependence. Tele-

ology, again, need neither be interpreted as a manifestation of a metaphysical design nor as an anthropomorphic illusion. It can be analysed as a form of macro-causal relation typical of organized systems.

In the mind-body problem we realize today that the customary approaches neither of monism nor of dualism lead anywhere. From the point of view of an epistemological analysis, physical and psychological concept formation do not necessarily differ in subject matter, in raw data, but only in the languages employed (with all their differences of pictorial-emotional connotation). The genuinely scientific work in psycho-physiology, though still in its infancy, can only be impeded by metaphysical prejudices and rash attempts at wholesale "solutions." Logical analysis, here as elsewhere, merely examines possibilities and makes explicit the basic assumptions or programs of research. It does not subscribe to the tenets of any school of psychology, although it is in essential agreement with the methodological outlook of behaviorism (but not necessarily with its scientic results and certainly not with any unqualified rejection of introspective techniques). This is simply a consequence of the acceptance of an inter-subjective criterion of factual meaning for science. The thesis of physicalism, in the sense of the unity of the *language* of science, amounts to the same view as that which was previously called "logical (or methodological) behaviorism."

Exactly the same kind of analysis is applied to the social sciences. There are no other methods or aims in the social and cultural sciences than exist in the natural sciences: observation, description, measurement, statistics, the discovery of explanatory laws and theories—though more difficult of achievement in the former than in the latter—are the basic procedures. The role of sympathetic "understanding" or "empathy" as a practical guide is certainly not to be minimized, but its results, if they are to be scientifically valid, are subject to the very same objective tests as are the results of inorganic science. If history is declared both a science and an art, then the scientific component lies as usual in the scrupu-

lous ascertainment and interpretation of the data, and the artistic component consists in the use of pictorially and emotionally appealing language in the representation of facts. To what extent sociology, economics, or history are capable of discovering reliable laws on some level of concept-formation is an empirical question and therefore cannot be decided a priori on logical grounds. Only by trial and error can we determine which dimensions or variables must be selected for the formulation of reliable dependencies.

Sharply to be distinguished from the thesis of the unity of science is the thesis of a unitary system of explanation in the sciences. Whereas the first thesis is relatively trivial, stating as it does only the possibility of passing from the concepts of one science to those of any other on strictly empirical grounds, the second thesis is as yet problematic and can be considered only as a tentative program of research. We have witnessed a great many reductions of sciences to other sciences (astronomy, acoustics, and thermodynamics to mechanics; optics to electrodynamics) and such impressive unifications as those of mechanics and electrodynamics as brought about by the relativity and quantum theories. In this connection it can be safely assumed today that chemistry is becoming reducible to atomic physics. Further unifications may be expected to emerge out of the endeavors of such borderland sciences as bio-physics, bio-chemistry, psycho-physics, psycho-physiology, social psychology, etc. As to whether these syntheses will lead to a complete reduction of the laws of the various sciences to a unitary set of basic laws, and as to whether these basic laws will be the laws of a future physics is again a matter of conjecture. Logical analysis can investigate the possibilities and the logical structure of such an extreme convergence of theories; it can dispel emotionally rooted misconceptions of or prejudices against these unifications, but it cannot afford to be dogmatic about their attainability. For the time being it seems more fruitful to analyze the different types of concepts and conceptual systems in the still relatively separate and autonomous sciences. This can

be done with due attention to the already existing interconnections of the sciences and without premature attempts at complete unification.

In general, the problems in the logic of science which have been and still are being pursued by the logical empiricists are not of this grandiose, sweeping character. Some of the most intensively cultivated fields of work, aside from the results in symbolic logic, pure syntax, semantics, and the foundations of mathematics, lie in detailed analyses of the concepts and procedures of the empirical sciences. We mention here among the more important ones: the contributions to the axiomatics of physical space and time (Reichenbach); studies in the definition of physical concepts and the construction of theories (Bridgman, Campbell, Carnap, Feigl, Lenzen, Lindsay, Margenau, Popper, Reichenbach, Woodger); the theory of measurement (Carnap, Campbell, Nagel, Stevens); the clarification of the concepts of causality and probability (Zilsel, Schlick, Feigl, Waismann, Frank, von Mises, Reichenbach, Popper, Copeland, Wald); studies in axiomatics of biology (Woodger); examination of the basic procedures and concepts of psychology (Carnap, Hempel, Bergmann, Koch, Boring, Stevens, Pratt, Skinner, Hull, Tolman, Brunswik, Lewin); the logical analysis of the Gestalt concept (Grelling, Oppenheim); analyses of the type-concepts of the social sciences (Hempel, Oppenheim) and of social science methodology (Felix Kaufman, G. A. Lundberg, E. Zilsel); the work on the basic problems of confirmation and the degree of confirmation of hypotheses (Carnap, Popper, Reichenbach, Hempel).

In the pursuit of these tasks and as a result of the rapid advances of the sciences, new problems are constantly opening up which require the attention of fully trained logicians and methodologists. It is here where cooperation with the scientists is the closest and the most productive.

VALUE-THEORY, ETHICS, AND OUTLOOK ON THE SOCIAL PROBLEMS

A LITTLE REFLECTION suffices to show that the meaning of the term "ethics" is highly ambiguous and that it designates

at least five different types of endeavor: (1) Moral "vision", i. e., the recognition, discovery, or (alleged) demonstration of a "right" or "good" way of life or of an uppermost standard of moral evaluation; (2) Moral exhortation, education, and propaganda; (3) Empirical studies of actual moral evaluations, either descriptive or explanatory; (4) The technology of the "good" life—a branch of applied science concerned with the discernment and perfecting of means (instrumental values) in view of certain ends (terminal values); (5) The logical analysis of ethical terms and sentences—either by the casuistic Socratic method or by the elaboration of a hypothetico-deductive system of ethical norms. The five-fold division just outlined is itself a result of the Socratic type of approach. (Quite analogous distinctions apply to aesthetics).

Ethical norms or imperatives as discovered or intuited in (1), proclaimed and advocated in (2), factually studied in (3), practically implemented in (4), and subjected to a meaning analysis in (5) may be reconstructed as sentences referring to a possible (usually not actualized) state of affairs and expressed with an emotional-motivational appeal. In the use of such terms as "ought", "should", "right", "good", "duty," etc. lies the irreducibly directive component of moral value-judgments. An ethical imperative like the Golden Rule simply means: "Would that everybody behaved toward his fellowmen as he expects them to behave toward him." This sentence, having its accent in the emotive appeal, could not possibly be deduced from a knowledge of facts only; it is neither true nor false. It is rather an invitation (suggestion, request, exhortation, or command) to *make* the contained factual sentence true. In traditional metaphysically or theologically oriented moral philosophies the attempt was made to validate the fundamental standards on the basis of revelation, apriori intuition, or logical proof. Absolute values were thus either concretely specified and dogmatically proclaimed or merely abstractly assumed and their specific content left open. From the logico-empirical point of view all

of these approaches involve confusions of meaning or assumptions incapable of test. Absolute values as well as categorical imperatives can be expressed only in emotive language.

Relative values in the sense of instrumental values which are determined by needs and interests and hypothetical imperatives which state empirically confirmable means-ends relations are factually-meaningful. Here the questions of truth or falsity make sense. As long as disagreement in morals depends merely upon differences in opinion or belief regarding the efficacy of contending means, such disagreement is in principle capable of settlement by the empirical method. True enough, means and ends are often so closely related and intertwined that it would be an oversimplification to assume a clearcut hierarchy of instrumental values crowned by uppermost fixed terminal values. Dewey has taught us to drop even this last remnant of value-rationalism. Nevertheless there are leading standards, thoroughly empirical, to be sure, in the light of which we evaluate the mutual adjustment and harmonization of ends and means. These guiding principles themselves are, as a matter of fact, judged and evaluated by their correspondence to human wants and desires. The question raised (and sometimes answered negatively) by metaphysicians, "Is the satisfying of human interests morally valuable?" is therefore not a factual question at all. As long as it is not specified to *whose* interests or to *which* interests reference is being made, it is the vagueness of the question that renders it meaningless. If, however, some such specifications are made it still does not acquire factual meaning because the term "valuable" (in the non-instrumental sense) is used as a purely emotive device for the direction or redirection of attitudes. If, finally, in some moral system a definite locus has been given for the application of such terms as "valuable", "good", "right" and the like, then such a material definition renders answers to our question either analytic or contradictory, as the case may be, and thus again lacking in factual meaning. The often emphasized *indefinability* of "good" is now clarified as due to the motivational

character of the term. The ever present possibility of asking the question "But is this really good?" shows that no descriptively delimited locus of valuableness forces its acceptance upon us as an ultimate criterion. We do not deny here that in the immediate experience of persons living in a given cultural context value judgments may bear the mark of intuitive self-evidence. But their very dependence upon and variability with that cultural context are a sufficient proof of their relative nature.

The quest for certainty, here in the field of morals just as elsewhere, may lead to emotionally soothing or edifying results. But the acceptance of an absolute authority or extramundane sanction for morality, like the belief in an absolute source of factual truth, manifests a not fully liberated, pre-scientific type of mind. A completely grown-up mankind will have to shoulder the responsibility for its outlook and conduct; and in the spirit of an empirical and naturalistic humanism it will acknowledge no other procedure than the experimental and no other standards than those prescribed by human nature and by our own insights in the possibilities of improving human nature.

The Scylla of metaphysical absolutism in value-theory can thus be avoided. But how about the Charybdis of an anarchical relativism of values? Historians, ethnologists, social psychologists are apt to arrive at the opinion that, with human interests and attitudes subject to so much variety (depending on epoch, climate, and socio-economic setting), each moral system is equally justified. They hold that there can be no unique system of morals binding upon all. Empiricism may often have been misled into this sort of reductive fallacy, yet a truly empirical study of human nature and social conduct discloses a considerable common denominator in at least the basic needs of all individuals living in the context of cooperation and mutual dependence. Around this nucleus as a center of orientation, all social, political, legal, economic, and educational reforms must operate if they are to achieve their aim to any degree at all. The salient evils and maladjustments of the life we call civilized can only be elimin-

ated or mitigated if by conscious effort and planning reforms are democratically undertaken and widely supported. Human interests, and with them, human satisfaction and happiness, are flexible, educable. What originally may have had value only as a means may, through use and habituation, acquire value as an end. Even if Hobbes' pessimistic opinions concerning the utterly selfish nature of human attitudes were correct (and there *is* some evidence to the contrary) it would yet be plausible that out of the use of cooperative and reciprocal-help procedures as mere means mankind does (or will) gradually develop genuinely kind and altruistic attitudes. Ethical relativism (i. e., the assertion that evaluations depend on needs and interests, and that these needs and interests, though fairly constant in their basic aspects, are not eternally fixed or apriori established) does not imply moral cynicism or pessimism. The standards of justice and fairness developed in the social process have themselves become objects of greatest interest. Most civilized people are highly sensitive to them and most indignant about their violation. Yet, it should be noted that ethical relativism does not necessarily imply that the majority should rule in the determination of the good life. Breaking through older and majority-endorsed standards to a new form of morality may be envisaged at first only by a few but may nevertheless be justifiable on the basis of the expected results of the new measures for the totality of mankind. The concrete implementation of any program of action lies outside the competence of the philosopher qua logical analyst. The gap between ascertained knowledge and the knowledge required for action will always prove inhibiting to the reflective thinker. Nevertheless his contributions should not be underestimated. By removing prejudice and confusion, by spreading enlightenment through the clarification of basic ideas, he occupies an indispensable role as a guide on the however tortuous path of human progress.

HISTORICAL NOTES

IN THE PRECEDING PAGES we attempted to survey in a non-technical manner the major ideas of the philosophical movement which was

known at its inception as the Logical Positivism of the Vienna Circle,[12] the ideas which have since developed into what is also called "Logical (or Scientific) Empiricism" or the "Unity of Science" project. The historical roots of this movement are two-fold. First, there is the empiricist tradition in modern and recent philosophy, (especially Hume, Comte, Mill, Avenarius, Russell) and the empiricist trend in nineteenth and twentieth century science, (notably Helmholtz, Hertz, Mach, Ostwald, Boltzman, Poincaré, Duhem, Einstein.) Second, there are the developments in mathematical logic and the logic of mathematics from Leibniz to Boole, Frege, Schroeder, Peirce, Peano, Whitehead, Russell, Hilbert et. al. It is worth noting that Bertrand Russell's name appears on both sides of the historical ancestry of Logical Empiricism. He, more than anyone else, prepared the ground for the later developments in which he has recently participated again, even if partly by critical opposition. In the wide range of his writings Russell has dealt most suggestively with the very subject-matter upon which the efforts of the logical positivists have been directed.

If the most immediate influences on the logical studies of the movement may be said to have come from Frege, Russell, and Hilbert, then perhaps one may be equally justified in mentioning Mach, Poincaré, and Einstein as the most prominent influences on its philosophy of empirical science. Since the confluence of the European and American movements, the pragmatists Peirce, James, Dewey, Mead, and the operationist Bridgman, should also be named.

The Vienna Circle evolved in 1923 out of a seminar led by Professor Moritz Schlick and attended, among other students, by F. Waisman and H. Feigl. Schlick's teaching period in Vienna had begun in 1922, and by 1925 out of this nucleus a Thursday evening discussion group was formed. It is interesting to note that many of the participants were not professional philosophers. Even if some of them taught philosophy, their original fields of study lay in other disciplines. Schlick, for example, had specialized in physics, and his doctor's thesis, written under the guidance of Max Planck in Berlin, concerned a problem in theoretical optics. Among the other active members we may mention: Hans Hahn, mathematician; Otto Neurath, sociologist; Victor Kraft, historian; Felix Kaufmann, lawyer; Kurt Reidemeister, mathematician. An occasional but a most contributive visitor was the Prague physicist Philipp Frank (now at Harvard). In 1927 and again in 1932 the brilliant Finnish psychologist and philosopher E. Kaila was present as an active and critical member of the group. Another visitor from Scandi-

navia was A. Petzaell (Goteburg). Among the younger participants were K. Goedel (now at Princeton), T. Radakovic, G. Bergmann, M. Natkin, J. Schaechter, W. Hollitscher, and Rose Rand; and, among the visitors, C. G. Hempel, Berlin; A. E. Blumberg, Baltimore; and A. J. Ayer, Oxford. Among the more loosely affiliated were K. Menger, E. Zilsel, K. Popper, H. Kelsen, L. v. Bertalanffy, Heinrich Gomperz, B. von Juhos.

The most decisive and rapid development of ideas began in 1926 when Carnap was called to the University of Vienna. His contributions to axiomatics and particularly his theory of the constitution of empirical concepts (as published in "Der Logische Aufbau der Welt") proved a very stimulating source of discussions. In the same year also, Ludwig Wittgenstein's "Tractatus Logico-Philosophicus" was studied by the circle. The philosophical position of Logical Positivism in its original form was the outcome of these profoundly incisive influences. Though many of the basic ideas had already been enunciated in a general manner by Schlick, they were formulated more precisely, stated more fully and radically, by Carnap and Wittgenstein, quite independently. These two men exerted an enormous influence upon Schlick, who was about ten years their senior.

In contrast to Carnap, who became a regular and most influential participant in the group, Wittgenstein, then pre-occupied with architecture, associated only occasionally with some of the members of the Circle. Even thus, more light was obtained on some of the rather obscurely written passages of his extremely condensed and profound "Tractatus." A few years later Wittgenstein returned to his philosophical studies and was called to Cambridge, England, where he later became successor to G. E. Moore. Schlick, as a visiting Professor, went to California in 1929 and 1932. Carnap was called to Prague in 1930 (later, in 1936, to Chicago) and Feigl to the U. S. A. in 1930. Hans Hahn, who was an expert in "Principia Mathematica" and in general an enthusiastic follower of Russell, died prematurely in 1934. The Circle discussions, however, continued, with Schlick and Waismann leading, until Schlick's tragic death in 1936. A former student, for years under observation by psychiatrists and diagnosed as insane, assassinated Schlick. The passing of this kindly, truly great and noble man, was bitterly lamented by his many friends.

The discussions of the Circle centered about the foundations of logic and mathematics, the logic of empirical knowledge, and only

occasional excursions into the philosophy of the social sciences and ethics. Despite the many differences of opinion, there was a remarkable spirit of friendly cooperation in the Circle. The procedure was definitely that of a joint search for clarity.

Among the directly related European movements we mention the Berlin group of Scientific Empiricists led by Hans Reichenbach, (now at Los Angeles), whose penetrating studies in the logic of science were closely followed in Vienna. The Berlin group included W. Dubislav, K. Grelling, C. G. Hempel, O. Helmer, M. Strauss, and A. Herzberg. Formerly also in Berlin, but now at Harvard, was the independent and brilliant positivist, Richard von Mises; he is outstanding for his work in the foundations of statistics, and a physicist, mathematician, and authority in aerodynamics besides. Another very stimulating thinker was the late P. Hertz, then at Goettingen. (He and Schlick re-edited and annotated the epistemological writings of Helmholtz.) Others in Germany who were closely related were P. Oppenheim, K. Lewin (now at Iowa) H. Behmann, and H. Scholz (head of the Münster school of logicians).

Linked to the Circle by an affinity of spirit reinforced by occasional visits were the members of the Polish groups of logicians and philosophers, primarily A. Tarski (now at Harvard), K. Ajdukiewicz, J. Lukasiewicz, S. Lesniewsky, L. Chwistek, and T. Kotarbinski. Outstanding in Denmark are the names of N. Bohr and J. Jorgensen; so too are those of Arne Ness in Norway and G. Mannoury in Holland. Closely related to positivism by aim and method is the group of analytic philosophers in England. There the prominent thinkers are C. D. Broad, F. P. Ramsey, J. H. Woodger, A. J. Ayer, L. S. Stebbing, M. Black, J. Wisdom, K. Britton and R. B. Braithwaite, of whom some are disciples of Moore, Russell, or Wittgenstein. Among the French sympathizers and collaborators we mention A. Rey, L. Rougier, M. Boll, Lecomte du Noüy, M. Fréchet, and Gen. Vouillemin, and among the Italians F. Enriques and G. de Santillana.

Related in doctrine, and more closely connected since the migration of a number of Europeans to the United States, there are the groups of American pragmatists, logicians, and methodologists. Some of them are A. C. Benjamin, N. Goodman, S. Hook, H. C. Langford, V. F. Lenzen, H. S. Leonard, C. I. Lewis, H. Margenau, C. W. Morris, E. Nagel, W. V. Quine, H. M. Sheffer, and C. L. Stevenson. There are also affinities with some American realists,

especially R. B. Perry, E. B. Holt, E. B. McGilvary, and M. R. Cohen. The American scientists with strong leanings in the logical and/or empiricist direction include L. Bloomfield, E. G. Boring, P. W. Bridgman, E. Brunswik, (formerly of Vienna), A. Church, H. B. Curry, R. Gerard, C. L. Hull, E. V. Huntington, S. C. Kleene, C. C. Pratt, N. Rashevsky, B. Rosser, C. E. Tolman, B. F. Skinner and S. S. Stevens.

Since 1935 the widening movement has found expression in the international congresses for the unity of science, held successively in Paris, Copenhagen, Cambridge, Harvard, and Chicago The publication of the International Encyclopedia of Unified Science, begun in 1938, will integrate further contributions of groups and persons interested in the advancement of inter-national, inter-departmental co-operation of the sciences in the spirit of logical and methodological analysis.

1. Minus some of James' own tender-minded deviations.

2. In a shrewd and entertaining book, *Die Tragikomoedie der Weisheit*, R. Wahle many years ago re-wrote the history of philosophy from a positivistic point of view.

3. i. e., the language whose undefined, primitive terms are spatiotemporal co-ordinates (referring to observable or measurable locations and dates) and thing-predicates (referring to observable properties of things).

4. Popular Science Monthly, Vol. 12, 1878. Reprinted in *Chance, Love, and Logic*, and in *Collected Papers of C. S. Peirce*, Charles Hartshorne and Paul Weiss, eds.

5. A. J. Ayer, *Language, Truth, and Logic*, p. 26.

6. In *The Logic of Modern Physics*, New York, 1927.

7. Scientific laws, hypotheses, and theoretical assumptions, for example, were considered by them perfectly legitimate frames for the formation of empirical sentences although, by terminological decision, they were not classified as genuine propositions.

8. Illustrations: ad (a): "Soft is the square of green." "Nor here I you neither was." Also, Hegel's famous definitions of light and heat (these suffer as well from the defect classified under *d*) ad (b): "Octogenarians are more than ten years old. "Birds can build nests without previous training because they have nest-building instincts." ad (c): "Octogenarians are sometimes more than ninety years old." Also, H. G. Wells' idea of a time-machine. ad (d): "Entelechies are responsible for the adaptability of organisms to their environment." "The true essence of electricity is undiscoverable." ad (e): The ether hypothesis; and metaphysical realism—both as discussed below.

9. *International Encyclopedia of Unified Science*, Vol. 1, No. 1, p. 61.

10. This does not contradict the well known fact that in testing any hypothesis we presuppose the validity of other hypotheses. Yet, by a process of successive confirmation (step-wise increases of scope) each hypothesis can be examined singly as to its adequacy, plausibility and simplicity within the given system.

11. However, the widely debated consequences for the free-will problem are precisely nil, for the simple reason that the free-will problem is a pseudo-issue arising out of confusions of meaning. Not determination but compulsion is the opposite of freedom.

[12] With its "declaration of independence": Wissenschaftliche Weltauffassung, Der Wiener Kreis, 1919.

SELECTED BIBLIOGRAPHY

I. *The Classical Sources of Logical Empiricism*

Galilei, Galileo: Dialogues Concerning Two New Sciences, New York, 1914

Hume, David: A Treatise of Human Nature, London, 1928-1930

Comte, Auguste: Cours de Philosophie Positive, 6 vols., 4th ed., Paris, 1877

Mill, John Stuart: A System of Logic, 8th ed. New York, 1930

Helmholtz, H. von: Popular Lectures on Scientific Subjects, New York, 1873

Schriften Zur Erkenntnistheorie, Berlin, 1921, (P. Hertz and M. Schlick, ed.)

Mach, Ernst: Contributions to the Analysis of Sensations, Chicago, 1897

Popular Scientific Lectures, Chicago, 1898

The Science of Mechanics, 4th ed., Chicago, 1919

Frege, Gottlob: Die Grundlagen der Arithmetik, Breslau, 1884, (reprinted 1934)

Die Grundgesetze der Arithmetik, Vols. I and II, Jena, 1893, 1903

Pearson, Karl: The Grammar of Science, 3rd ed. London, 1911

Peirce, Charles S.: Collected Papers, Cambridge, 1931 ff. (ed. Charles Hartshorne & Paul Weiss.)

Poincaré, Henri: The Foundations of Science, New York, 1929

James, William: Pragmatism, New York, 1907

Essays in Radical Empiricism, New York, 1912

Hilbert, David: Die Grundlagen der Geometrie, enlgd. ed. Leipzig, 1930

Einstein, Albert: Sidelights on Relativity, London, 1922

On the Method of Theoretical Physics, New York, 1933

Einstein, Albert and Infeld, L.: The Evolution of Physics, New York, 1938

Whitehead, A. N. and Russell, B: Principia Mathematica, 2nd ed. Vols. I, II, III, Cambridge, 1925, 1927
Russell, Bertrand: Our Knowledge of the External World, 2nd ed. New York, 1929
The Analysis of Mind, London, 1921
Dewey, John: Logic, The Theory of Inquiry, New York, 1938

II. *General Summaries, Introductory and Historical Literature*

Grelling, K.: The Philosophy of the Exact Sciences, *Monist* 38, 1928
Der Wiener Kreis: Wissenschaftliche Weltauffassung, Vienna, 1929
Blumberg, A. E. and Feigl, H.: Logical Positivism: A new movement in European philosophy, *Jour. of Philos.* 28, 1931
Feigl, Herbert, Moritz Schlick: *Erkenntnis* 7, 1939
The Significance of Physics for Philosophy, *Amer. Phys. Teacher,* 1939
Schlick, Moritz: The Future of Philosophy, (*College of the Pacific, Publ. in Philos.,* 1932)
A New Philosophy of Experience (ibid.) (both published in Gesammelte Aufsatze, Vienna, 1938)
Neurath, Otto: Le developpement du cercle de Vienne et l'avenir de l'empirisme logique, Paris, 1935
Morris, C. W.: Logical Positivism, Pragmatism and Scientific Empiricism, Paris, 1937
Nagel, Ernest: Impressions and appraisals of analytic Philosophy in Europe, *Journal of Philos.,* 33, 1936
The fight for clarity: Logical Empiricism, *Amer. Scholar,* 1938
Four philosophies of science, *Kenyon Rev.,* 1941
Reichenbach, Hans: Logistic Empiricism and the present state of its problems, *Jour. of Philos.,* 33, 1936
Menger, Karl: The new logic, *Philos. of Science* IV. 1937
Hofstadter, Albert: On semantic problems, *Jour. of Philos.,* 35, 1938
Stevens, S. S.: Psychology and the science of science, *Psy. Bull.,* 36, 1939
Black, Max: Relations between Logical Positivism and the Cambridge School of Analysis. *Jour. of Unified Sci.* VIII, 1939
Ayer, A. J.: Language, Truth, and Logic, Oxford U. Press, New York, 1936
Weinberg, J. R.: An Examination of Logical Positivism, New York, 1936

Mises, R. von: Kleines Lehrbuch des Positivismus, The Hague, (also Chicago U. Press), 1939

Reichenbach, Hans: Symbolic Logic (in preparation).

Tarski, Alfred: Introduction to Logic and to the Methodology of the Deductive Sciences, New York, 1941

International Encyclopedia of Unified Science: esp. Vol. I, No. 1, Encyclopedia and Unified Science (with contributions by Neurath, Bohr, Dewey, Russell, Carnap, Morris); Vol. II, No. 8, Problems of Empiricism and Rationalism (E. Zilsel and G. de Santillana); and Vol. II, No. 10, Bibliography (in preparation)

Also: articles in *Erkenntnis, Journal of Unified Science, Analysis, Philosophy of Science, Theoria, Mind, Journal of Philosophy, Philosophical Review, Proc. of the Aristotelian Society*

III. *More Specific or Technical Contributions*

(1) ANALYSIS OF LANGUAGE

Wittgenstein, Ludwig: Tractatus Logico-Philosophicus, London, New York, 1922

Carnap, Rudolf: Philosophy and Logical Syntax, London, 1935
The Logical Syntax of Language, London, New York, 1937
Studies in Semantics (In Preparation)

Morris, C. W.: Foundations of the Theory of Signs, *Int. Ency. of Unif. Sci.*, Vol. 1, No. 2

Bloomfield, Leonard: Linguistic Aspects of Science, *Int. Ency. of Unif. Sci.*, Vol. 1, No. 4

Schlick, Moritz: Meaning and Verification, *Philos. Rev.*, 1936 (Also in Gesammelte Aufsatze, Vienna, 1938)

Dubislav, Walter: Die Definition, Leipzig, 1931

Schaechter, Josef: Prolegomena zu einer Kritischen Grammatik, Vienna, 1938

Gomperz, Heinrich: The Meanings of "Meaning", *Philos. of Sci.*, 8, 1941

Hempel, C. G.: Vagueness and Logic, *Philos. of Sci.*, 6, 1939

(2) FOUNDATIONS OF LOGIC AND MATHEMATICS

Russell, B.: The Principles of Mathematics, 2nd ed., New York, 1938

Lewis, C. I.: Survey of Symbolic Logic, Berkeley, 1918 (Out of print)

Carnap, Rudolf: The Logical Syntax of Language; London, New York, 1937
The Foundations of Logic and Mathematics, *Int. Ency. of Unif. Sci.*, Vol. 1, No. 3
Abriss der Logistik, Vienna, 1929
Jorgenson, Jorgen: A Treatise of Formal Logic, London, 1931
Ramsey, F. P.: The Foundations of Mathematics and Other Logical Essays, New York and London, 1931
Black, Max: The Nature of Mathematics, London, 1933
Lewis, C. I. and Langford, C. H.: Symbolic Logic, New York, 1932
Hilbert, D. and Ackermann, W.: Grundzüge der Theoretischen Logik, Berlin, 2nd ed., 1938
Waismann, F.: Einführung in das Mathematische Denken, Vienna, 1936
Quine, W. V.: Mathematical Logic, New York, 1940
(Contains an extensive bibliography)
Tarski, Alfred: Der Wahrheitsbegriff in den Formalisierten Sprachen, *Studia Philos.*, Vol. 1, 1936
Church, Alonzo: A Bibliography of Symbolic Logic, *Jour. of Symbol. Logic*, (1936, 1938)

(3) LOGICAL ANALYSIS OF EMPIRICAL KNOWLEDGE

Carnap, Rudolf: Der Logische Aufbau der Welt, Berlin, 1928
Testability and Meaning, *Philos, of Sci.*, 3 and 4, 1936 and 1937
Goodman, Nelson: A Study of Qualities: An Essay in Elementary Constitutional Theory. Doctoral thesis, Harvard, 1940/1941 (To be published)
Lewis, C. I.: Mind and the World Order, New York, 1929
Schlick, Moritz: Allgemeine Erkenntnislehre, 2nd ed., Berlin, 1925 Gesammelte Aufsaetze, Vienna, 1938
Reichenbach, Hans: Experience and Prediction, Chicago, 1938
Nicod, Jean: Foundations of Geometry and Induction, London and New York, 1930
Kaila, Eino: Über das System der Wirklichkeitsbegriffe, *Acta Philos. Fennica*, Helsinki, 1936
Feigl, Herbert: The Logical Character of the Principle of Induction, *Philos. of Sci.*, Vol. 1, 1934
Logical Analysis of the Psycho-Physical Problem, *Philos. of Sci.*, Vol. 1, 1934
Sense and Nonsense in Scientific Realism, *Actes du Congrès International de Philos. Scientif.*, Paris, 1936

Barrett, William: On the Existence of the External World, *Jour. of Philos.*, 36, 1939
Russell, Bertrand: An Inquiry into Meaning and Truth, New York, 1940
Ayer, A. J.: The Foundations of Empirical Knowledge, New York, 1940
Hempel, C. G.: On the Logical Positivists' Theory of Truth, *Analysis*, 2, 1935

Some Remarks on Empiricism, *Analysis*, 3, 1936

(4) THE LOGIC AND METHODOLOGY OF THE EMPIRICAL SCIENCES
Reichenbach, Hans: Axiomatik der Relativistischen Raum-Zeit-Lehre, Braunschweig, 1924
Philosophie der Raum-Zeit-Lehre, Berlin, 1928
Wahrscheinlichkeitslehre, Leyden, 1935 (Engl. revised ed.: Theory of Probability, U. of Cal. Press, Berkeley, — in preparation)
Philosophical Foundations of Quantum Mechanics, (To be published shortly)
Zilsel, Edgar: Das Anwendungsproblem, Leipzig, 1916
Carnap, Rudolf: Physikalische Begriffsbildung, Karlsruhe, 1926
The Unity of Science, London, 1934
Feigl, Herbert: Theorie und Erfahrung in der Physik, Karlsruhe, 1929
Scientific Explanation (in preparation)
Schlick, Moritz: Space and Time in Contemporary Physics, New York, 1920
Causality in everyday life and in science, (*University of California Publications in Philos.*), Berkeley, 1932
Popper, Karl: Logik der Forschung, Vienna, 1935
Frank, Philipp: Between Philosophy and Physics, Harvard U. Press, 1941
Das Kausalgesetz und seine Grenzen, Vienna, 1932
Bridgman, P. W.: The Logic of Modern Physics, New York, 1928
The Nature of Physical Theory, Princeton, 1936
Campbell, N. R.: Physics: The Elements, Cambridge U. Press, 1920
Broad, C. D.: Scientific Thought, London, New York, 1923
Lenzen, V. F.: The Nature of Physical Theory, New York, 1934
Procedures of Empirical Science, *Int. Ency. of Unif. Sci.*, Vol. 1, No. 5

Lindsay, R. B. and Margenau, H.: Foundations of Physics, New York, 1936

Mises, R. von: Probability, Truth, and Statistics, London, New York, 1939

Nagel, Ernest: Measurement, *Erkenntnis*, 2, 1931

The Logic of Reduction in the Sciences, *Erkenntnis*, 2, 1931

Principles of the Theory of Probability, *Int. Ency. of Unif. Sci.*, Vol. 1, No. 6

Bures, C. E.: The Concept of Probability, *Philos. of Sci.*, 8, 1939

Fréchet, M.: The Diverse Definitions of Probability, *Jour. of Unif. Sci.*, 8, 1939

Cohen, M. R.: Reason and Nature, New York, 1931 (esp. the parts on Biology)

Woodger, J. H.: Biological Principles, New York, 1929

The Axiomatic Method in Biology, Cambridge U. Press, 1937

Technique of Theory Construction, *Internat. Ency. of Unif. Sci.*, Chicago, 1939

Singer, E. A.: Mind as Behavior, Columbus, 1924

Pratt, C. C.: The Logic of Modern Psychology, New York, 1939

Tolman, E. C.: Purposive Behavior in Animals and Men, New York, 1932.

Physiology, Psychology, Sociology, *Psych. Rev.*, 45, 1938

Weiss, A. P.: The Theoretical Basis of Human Behavior, 2nd ed., Columbus, 1929

Skinner, B. F.: The Behavior of Organisms, New York, 1938

Koehler, Wolfgang: Dynamics in Psychology, New York, 1940

Brunswik, Egon: The Conceptual Focus of Some Psychological systems, *Jour. of Unif. Sci.*, 8, 1939

Boring, E. G.: The Physical Dimensions of Consciousness, New York, 1933

Psychophysiological Systems and Isomorphic Relations, *Psych. Rev.*, 43, 1936

A Psychological function is the relation of successive differentiations, etc., *Psych. Rev.*, 44, 1937

Lewin, Kurt: The Conceptual Representation and the Measurement of Psychological Forces, *Contr. to Psych. Theory*, 1, No. 4, 1938

Hull, C. L.: Mind, Mechanism, and Adaptive Behavior, *Psych. Rev.*, 44, 1937

Mathematico-Deductive Theory of Rote Learning, Yale U. Press, 1940

Koch, Sigmund: The Logical Character of the Motivation Concept, *Psych. Rev.*, 48, 1941
Bergmann, Gustav: The Subject Matter of Psychology, *Philos. of Sci.*, 7, 1940
Bergmann, Gustav, and Spence, K. W.: Operationism and Theory in Psychology, *Psych. Rev.*, 48, 1941
Neurath, Otto: Empirische Soziologie, Vienna, 1931
Kaufmann, Felix: Methodenlehre der Sozialwissenschaften, Vienna, 1936
Hutchinson, T. R.: The Significance and Basic Postulates of Economic Theory, London and New York, 1939
Hempel, C. G. and Oppenheim, P.: Der Typusbegriff in Lichte der Neuen Logik, Leiden, 1936
Lundberg, G. A.: Foundations of Sociology, New York, 1939
Hook, Sidney: Reason, Social Myth, and Democracy, New York, 1940
Popper, K. R.: What Is Dialectic? *Mind*, 59, 1940

(5) VALUE THEORY AND ETHICS

Schlick, Moritz: Problems of Ethics, New York, 1939
Perry, R. B.: General Theory of Value, New York, 1926
Dewey, John: Theory of Valuation, *Int. Ency. of Unif. Sci.*, Vol. II, No. 3
Cohen, Felix: Ethical Systems and Legal Ideals, New York, 1933
Menger, Karl: Moral, Wille, Weltgestaltung; Vienna, 1934
Kraft, Viktor: Die Grundlagen einer Wissenschaftlichen Wertlehre, Vienna, 1937
Abraham, Leo: The Logic of Ethical Intuitionism, *Internat. Jour. of Ethics*, 44, 1933
Stevenson, C. L.: The Emotive Meaning of Ethical Terms, *Mind*, 43, 1934
Ethical Judgment and Avoidability, *Mind*, 46, 1937
Persuasive Definitions, *Mind*, 47, 1938
Boas, George: Habit, Fact and Value, *Jour. of Philos.*, 36, 1939
Hobart, R. E.: Freewill as Involving Determination and Inconceivable Without It, *Mind*, 43, 1934
Gomperz, Heinrich: Some Simple Thoughts on Freedom and Responsibility, *Philosophy*, 12, 1937
Hofstadter, A. and McKinsey, J. C. C.: On the Logic of Imperatives, *Philos. of Sci.*, 6, 1939
Ritchie, B. F. and Kaplan, A.: A Framework for an Empirical Ethics, *Philos. of Sci.*, 7, 1940

THE STORY OF AMERICAN REALISM

By William P. Montague

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I. *The Pre-Realistic Background*

In American philosophy, at the end of the nineteenth century, there was small interest in Empiricism and almost no interest in Realism.

The great Thomistic realism of the Catholics was unfortunately regarded by the non-Catholics as too closely bound up with theological dogmas to be of any significance for secular thought. The realistic doctrines of the Scottish school, at one time rather widely current in the country and expressed with vigor by McCosh at Princeton, had passed away. The agnostic realism of Spencer and Hamilton had not affected to any extent the teaching in the universities. The traces of realism, both Platonic and particularistic, in the philosophy of C. S. Peirce had not attracted attention, and the same may be said of the kind of realism which Hyslop, a reader of the valuable but little-known work of Thomas Case, combined with his spiritistic beliefs. Paul Carus, whose blend of Buddhism and psychophysical monism contained realistic elements, exerted little influence on academic philosophy, and he himself never received from the universities the recognition which his valuable services to philosophic journalism should have elicited.

In contrast to these fragmentary realistic tendencies, Idealism, both epistemological and ontological, was everywhere rampant. Even before the Transcendentalism of Emerson and Alcott had quite died away in New England, Dr. W. T. Harris, the much respected United States Commissioner of Education, had organized a group in St. Louis for the study of Hegelianism, and had founded the *Journal*

of Speculative Philosophy. The Idealism thus started in the Middle West was further continued by Wenley at Michigan and by many others. G. H. Howison at the University of California had developed a very original though not thoroughly worked out system of pluralistic idealism in which the monadism of Leibniz and the subjectivism of Fichte were combined in a new synthesis. And by the force of his personality and the ardor of his convictions, he created on the Pacific Coast an enthusiasm for philosophy that still endures. So much for the West. In the East, Thomas Davidson at his "Bread-Winners' College" in New York was preaching a form of pluralistic idealism similar to that of Howison but more voluntaristic and strongly colored by the thought of Rosmini. At the universities, there were Creighton at Cornell, Ormond at Princeton, Fullerton at Pennsylvania, Miss Calkins at Wellesley, Butler at Columbia, Ladd and Duncan at Yale (more Lotzian than Hegelian), and at Boston University Borden P. Bowne, whose "Personalism" is being vigorously continued today by Brightman and Flewelling. Finally, at Harvard there were Everett, Palmer, Muensterberg, and Royce. (I have listed merely the names that come to mind, and many others should doubtless be added.[1])

Most of these idealists were "Right Wing" rather than "Left." From the Orthodox Christian Theism of Bowne to the Personalistic Absolutism of Royce there was little of the Spinozistic or pantheistic tendency of Bradleyan idealism. Howison, Fullerton, and Davidson were, however, in successively increasing degree aloof from the position of traditional religion; and Muensterberg with considerable originality used Fichtean transcendentalism as a façade for the thoroughgoing mechanistic naturalism which he applied to the existential world of phenomena.

II. *The Revolt of the Pragmatists*

The first decade of the present century was a time of change and insurgency in American philosophy. The

pragmatism of William James foreshadowed in his great *Psychology* and explicitly proclaimed in his California address in 1898 was systematically expounded in the books entitled *Pragmatism* and *The Meaning of Truth.* During the same years John Dewey, first at Chicago and later at Columbia, had developed independently of James but in close sympathy with him the form of pragmatic philosophy known as "Instrumentalism." Though the pragmatism of James and the instrumentalism of Dewey were alike in opposing the monism and intellectualism of the dominant forms of idealism, it is my impression that it was the metaphysical and psychological faults of those doctrines that aroused James to revolt, while for Dewey it was rather the sociological and methodological weaknesses of idealism that merited attack. As a result of this difference in emphasis, the philosophy of James developed into a metaphysical pluralism stressing the free will and independence of the individual as opposed to the idea of what he termed the "block universe" of the absolutists. This personalistic pluralism was later extended to the even more complete pluralism of *Radical Empiricism.* On the other hand, Dewey's instrumentalism, true to its name, developed from its first theoretical expression in his *Essays on Experimental Logic* into increasingly practicalistic treatises on education and social questions, in which the problems of traditional metaphysics were less and less stressed and finally abandoned as outmoded and artificial. In short, the instrumentalism of Dewey, both in its practicalistic motivation and in its anti-metaphysical outcome, has proved itself to be for better or for worse more purely pragmatic than pragmatism itself.

III. *The New Realists and their Program*

It was, I think, in the spring of 1910 that six teachers of philosophy formed a group for the purpose of expounding and defending a new kind of realistic philosophy. The group consisted of Perry and Holt from Harvard, Marvin and Spaulding from Princeton, and Pitkin and myself from

Columbia. After a few meetings we published in *The Journal of Philosophy* "A program and First Platform of Six Realists." This co-operative article was followed in a year and a half by a co-operative book entitled *The New Realism.*

Although the impressions of American realism that are to be sketched in this paper are almost exclusively concerned with the organized groups calling themselves "New Realists" and "Critical Realists," it is appropriate to mention at least the names of six American philosophers who, though they were not officially members of either group, have during the past 30 years in various ways and in varying degree expounded a realistic philosophy. These "unofficial" realists are: first and most important of the series, Woodbridge of Columbia (who was invited but refused to join the New Realists), McGilvary of Wisconsin, Boodin (now) of the University of California at Los Angeles, Cohen of the College of the City of New York, Loewenberg of the University of California, and Macintosh of Yale.

We had all been realists prior to our forming the group, and each of us had written papers in which realism was implicity or explicity defended. I think that Perry and I wrote the first two of the explicitly realistic articles, and these were each inspired by the bitter attack on the realistic standpoint contained in the first volume of his *Gifford Lectures* by our teacher, Professor Royce. My article in *The Philosophical Review* for March 1901 was entitled "Professor Royce's Refutation of Realism"; and Perry's article entitled "Professor Royce's Refutation of Realism and Pluralism" was printed in *The Monist* for October of the same year. Though the members of our new group differed widely in their metaphysical views, there were certain methodological and epistemological postulates which we shared in common. I may summarize them as follows:

1. Philosophers should follow the example of scientists and co-operate rather than work alone. The co-operation which we were to practise consisted in each man showing

his essay to the others, taking account of their suggestions, and securing, not unanimous agreement with every proposition, but general assent to the essay as a whole.

I am not sure that this precept was put into practice to any very significant extent. We read one another's papers and listened conscientiously to one another's criticisms, and we did for the most part make the revisions or at least the omissions that were requested, but I am afraid that especially on matters about which we felt strongly there tended to develop among us a tacit and, I hope, an unconscious understanding which if made explicit could have been expressed as, "I'll pass your stuff if you'll pass mine."

2. Philosophers should follow the example of scientists in isolating their problems and tackling them one by one. We were to follow this precept by isolating the epistemological problem and studying the cognitive relation obtaining between any knower or apprehender and any object that he knows or apprehends without prejudging or even raising the question as to the ultimate nature of the apprehending subjects or of the apprehended objects.

I think that we stuck to this precept fairly consistently. If a certain amount of ontology and cosmology was included in each of the essays in our book, it was by way of supplementation and clarification of the central issue, which was the question of whether the cognitive relation was or was not a necessary condition for the reality of the objects cognized. The point was of especial importance to me because I had a metaphysics less naturalistic and more dualistic than that of the others—with the possible exception of Pitkin—and I wanted to be quite sure that our agreement on the realistic theory that *knowledge as such makes no difference to the objects known* was not going to commit us to any theory as to the nature of those objects or of man's place among them.

3. Some, at least, of the *particulars* of which we are conscious exist when we are not conscious of them.

This was the ordinary particularistic or *existential* realism of common use.

4. Some, at least, of the *essences or universals* of which we are conscious subsist when we are not conscious of them.

This was Platonic or *subsistential* realism.

5. Some, at least, of the particulars as well as the universals that are real are apprehended directly rather than indirectly through copies or mental images.

This was the *presentative realism* of Reid, as contrasted with the representative realism or epistemological dualism of Descartes and Locke.

It will be seen from the last three of our five postulates that we planned to revive and defend ordinary realism by adding to it Platonism and by subtracting from it the dualistic or copy theory of knowledge.

IV. *The Argument for Existential Realism*

The general argument for our new realism as applied to particular things in space and time was itself not new but old. It consisted in the attempt to show by empirical examination and inference that the things that are believed to be real do not seem to depend on the fact that they can figure as objects of perceptual and conceptual experience. To prove this independence directly by Mill's Method of Difference is, of course, impossible; and to demand it of the realist is both unfair and absurd. We can bring a dog into the presence of a cat and observe that he growls, then take him away and note that the growling ceases, and thereupon infer with high probability that the dog's growling depended upon his being in the presence of the cat. Or, substituting a chair and a book for the cat, we can introduce a dog to their presence and by the same Method of Difference infer that his behavior is not affected by and hence not dependent upon his being in the presence of those objects. But we cannot look at a thing before we see it or after we have seen it and note whether our seeing it has changed its appearance. Yet, as Perry so conclusively showed in his classic paper *The Egocentric Predicament,* it does not follow because an object's independence of our experiencing

it cannot be proved by the Method of Difference that, therefore, it cannot be proved by some other method. Still less does it follow that the idealist's hypothesis of the dependence of objects upon consciousness is implied by the fact that when objects are observed, consciousness is always present.

The presence of consciousness together with the objects of which we are conscious is merely a tautology which leaves the dependence or independence of the objects an open question to be decided by inference from their behavior *while under observation.*

The situation is analogous to the one in which we find the stars always present together with human affairs. If we wish to refute the astrologer's claim that human affairs depend upon the presence of the stars, we cannot do it by removing the stars and taking note of what then happens. So far as the Method of Difference is concerned, we are, to be sure, in a "predicament." But despite our predicament, we seek confidently to show that there are no constant or causally significant correlations between the behavior (conjunctions) of the heavenly bodies and the episodes of men's lives. In the same way and with at least as much success, we as realists can seek to show that the behavior of objects when co-present with consciousness reveals no constant or causally significant correlations with that consciousness. Even the astrologer, whatever his other fallacies, does not rest his case merely upon the irremediable co-presence of the course of the stars and the course of human affairs. But the idealist, whatever his other virtues, does incline to rest *his* case on the mere co-presence of the two terms in the situation whose dependence or independence is at issue. *He entrenches himself behind a tautology in the belief that it is an axiom.* And as Dr. G. E. Moore has remarked, if only the idealist can once be made to entertain even as a bare possibility the hypothesis that the objects of which we are aware may nevertheless be independent of that awareness, half the battle for realism is won. For whether we consider the objects of ordinary perception or the more rec-

ondite objects of science, it is somewhat pathetically obvious that in neither case does their behavior show any signs of being affected by their presence in consciousness. They come and go as they list, and while our experience and its changes depend largely upon them and upon their changes, the converse is not true. Of all the invariant relations or "laws" of physical nature, I know of no single one that depends for its reality upon the mere fact that it is or can be experienced.

V. *The Argument for Subsistential Realism*

The method of proving the independent reality of the universals or essences that *subsist* is the same as the method of proving the independent reality of the particular things or events that *exist.* That $7 + 5 = 12$ is entirely explained by the natures of seven, of five, and of twelve, and not in the least by the nature of consciousness. The "egocentric predicament" applies as much and means as little for our knowledge of forms as for our knowledge of particular facts. Whether the forms are numbers, or non-quantitative qualities like blue and yellow, their relations and configurations exhibit a complete indifference to the fact that we are conscious of them. It is, of course, true that *which* of the forms or *which* of the events a man will experience at any moment will be determined by the condition of his organism and even by his memories and interests at that moment. But the function of these subjective factors is *selective* rather than *constitutive,* and the objects themselves are to be explained in terms of their relations to one another and not in terms of their relations to the process of selecting them.

VI. *The Argument for a Presentative rather than a Representative or Copy Theory of Knowledge*

For an object to be perceived it is necessary either that it should stimulate the percipient organism, as with waves of light or sound, or else that an effect similar to that of a

stimulus should in some other way be produced in the organism. Thus, we shall normally perceive a sphere in front of us if there actually is such a sphere and if it sends to our eyes light waves, and by that means ultimately produces a certain specific effect in our brain. But if the same specific effect is produced by two flat disks acting through the mechanism of a stereoscope, we shall perceive a sphere as clearly as in the other case. Everybody admits such facts as these; and there are many who have argued that, because an effect in the organism must precede the perception of an object, it must follow that the perceived object is itself identical with the effect produced in the organism. The truth of such a conclusion would mean that the whole perceptual world is inside the percipient and that it is at best no more than a copy of the external world of physical entities.

Now, we New Realists believed that this epistemological dualism was not implied by the premises invoked in its support. We argued that Descartes, Locke, and their followers were guilty of a sheer *non sequitur* in concluding that the object perceived must be identical with the intra-organic means by which it was perceived, and that as the latter was internal the former would have to be equally internal.

The arguments for our position in this matter were not, I think, as clear and consistent as they should have been. We were perhaps all in agreement that the fact that perceived objects at least *appear* to be external created a presumption that they were really external and that the burden of proof rested upon those who would deny that presumption. I think we were also agreed that the space and time of perceptual experience, despite specific aberrations that might call for correction, took up, so to speak, "all the room there was," and that consequently there was no room left for a conceptual or inferred space and time that were to be real beyond and behind the realm of perceived and perceivable objects. These seemed to be as external as

possible; and if *they* were not really outside us, there was nothing else that could be.

To the extent that we attempted to supplement these rather vague feelings by explicit arguments we fell into disagreement, and of those disagreements I shall speak later.

VII. *New Realism in Relation to Idealism*

The fallacies of idealism as they appeared to us can be briefly stated, and such a statement may help to clarify our own position.

The first and cardinal fallacy of idealists was their ascription of self-evidence to the proposition that the relation of the knower to the object known is an "internal relation," that is, a relation such that the terms related are dependent upon the existence of the relation.

This first dogma, asserting the axiomaticity of idealism, has been held by idealists from Berkeley to Bradley. The realist, of course, denies that the relation of the knower to the object known is self-evidently revealed as "internal." He makes no counter claim for the self-evidence of the "externality" of the cognitive relation, but he does hold that the latter can be proved inductively.

Now, when the idealist has once committed himself to the postulate that no object can exist apart from consciousness or experience, he finds himself in a predicament. The universe is obviously too large and long-enduring for him to regard it as dependent upon the finite experience of himself and his neighbors; hence, there must be postulated an infinite and absolute experience in which it is contained and on which it does depend. The second postulate of Absolutism is thus made necessary to repair the havoc wrought by the first postulate of Subjectivism. If, however, we refuse as realists to take the first step, we are under no compulsion to take the second. If events can exist in their own right without the need of depending on consciousness, the hypothesis of an absolute consciousness is no longer demanded by the situation. The Absolute may, of course,

be inferable on other grounds, but not on the grounds of epistemology.

VIII. *New Realism in Relation to Pragmatism*

From the standpoint of most realistic observers, the essential doctrine of pragmatism consists of two postulates, which we may term, respectively, the *methodological* postulate of Practicalism (which states a theory as to the *criterion* of truth), and the *epistemological* postulate of Relativism (which states a theory as to the *meaning* of truth). The methodogical postulate is very ambiguous and appears to be variously interpreted even by the pragmatists themeslves. When one says that a proposition can be believed to be true if it works well in practice or if it leads to successful consequences, one may mean either (1) that accepting the proposition brings happiness or (2) that it brings a sensory experience of which the proposition in question was an anticipation. A religious creed, for example, may be held to be true on the ground that it enables its adherents to function efficiently and to meet the crises of life with serenity and courage. In this sense it works well and leads to successful results in practice. But I think that most realists would regard the correlation between the truth of a proposition and its "working well" in this sense as very imperfect and unreliable. There are many false beliefs that have worked well over long periods of time for many people, and, again, there are many true propositions that can bring despair and even paralysis of action to some of the persons who believe them. If, on the other hand, we take "working well" or "successful consequence in practice" to mean *sensory fulfilment of anticipation,* then, indeed, we have a reliable criterion of truth—which is, however, nothing but old-fashioned empiricism under a new name.

But it was not the methodological postulate of pragmatism (even when interpreted "humanistically" rather than empirically) to which realists as such were mainly opposed, but rather the epistemological postulate which grew out of

it. To regard the successful experiences that ensue from a belief as a criterion of its truth is one thing—and a thing that is sometimes bad and sometimes good—but to assume that *truth itself consists in the process by which it is verified* is a different thing and always bad. It makes truth a psychological affair and, as such, an affair of individual experience and relative to each individual who has the experience. I may experience successful consequences from believing that the proposition "*A* is *B*" is true; you may experience consequences that are equally successful, and successful in the same sense, from believing that it is false. Shall we, then, say that the same proposition is at once both true and false? True for me and false for you? This relativistic epistemology of the pragmatists was rejected by the realists. The truth (or falsity) of a proposition *antedates* the process by which it is verified (or refuted). The proposition "Mars is inhabited by intelligent beings" is either true or false; but it may be a long time before we discover which. When and if we do discover whether the proposition is true, it will occur to nobody except a philosophic pragmatist in the privacy of his study to imagine that the proposition waited until that moment to *become* true or to *become* false. The facts about Mars, like other facts in the world, will be regarded as having been what they were prior to the events of their discovery or verification.

To this realistic attitude the pragmatists replied by saying that we were making a fetish of "Truth in the abstract" or "Truth with a capital *T*" which could never be experienced and which consequently had no use or meaning. And they would add the comment that while it was all very well for us to say that truth was the relation of "agreement between judgments and realities," we ought at the same time to admit that such agreement could be found only in individual experiences, to which, therefore, it was relative and on which it was dependent.

It seems to me that we have here a recurrence of the "*egocentric predicament,*" but in an interestingly altered form. In the original form of the "predicament" we were

challenged by the *idealists* to point to a case of *reality* apart from experience. In the new form of the "predicament" we are challenged by the *pragmatists* to point to a case of *truth* (that is, the agreement relation of judgments with reality), apart from experience. We answered the idealist by pointing out that, though quite obviously facts could never be observed in the absence of experiencing them, yet when they were observed in the presence of experience they gave every sign of being independent of that experience with which they were co-present. And as it was with *facts,* so also is it with *truth,* which is the special relation of agreement or correspondence obtaining between facts and the judgments about them. The agreements can never be discovered when absent from the experience that verifies them; but, when discovered in that experience, they give every sign of not depending upon it. When Columbus verifies his hypothesis that there is land to the westward of Europe; when Newton verifies his gravitational hypothesis; when Pythagoras verifies his geometrical hypothesis —in each and every case the truth that is verified reveals a structure that could not have depended upon or have had to "wait for" the verifying experience in order to be what it is. The whole nature and behavior of things testifies to the realists' conclusion that the function of experience in general and of verification in particular is not to create in themselves the things and the agreements that are experienced and verified, but rather to reveal or discover them to us. It is we, the perceiving subjects, and not they, the perceived objects, that profit and are changed by that strangest of all relations between an individual and his environment, the relation which we variously denominate "awareness of," "consciousness of," or "experiencing."

There was a final charge that was sometimes brought by the pragmatists which made us pecularily and justifiably indignant. This was the charge that, because we held that facts and truths do not depend upon being experienced, we should also hold that experience is *otiose* and makes no difference to the world in which it occurs. In rejecting this

imputation of epiphenomenalism (at least as a necessary consequence of his epistemological theory), the realist may point out that consciousness, though not affecting objects in the act of revealing them, can and does change them through the actions of the being to whom they are revealed. Seeing an object enables the seer to adapt himself to it and to its laws, or even to adapt it to himself and to his needs. The light of a lantern does not directly affect the obstacles in the path of the traveller, but it does affect them indirectly by enabling the traveller to remove them. Thus, and thus only, are objects affected by our experience of them.

From this Section (and the one preceding) it will be seen that the epistemological controversy was triangular: Idealism, Pragmatism, Realism—each one against the other two. From our realistic viewpoint, the idealists were right in holding to the ordinary conception of truth as something absolute and not relative to finite minds, but wrong in their insistence that facts exist ultimately only as items of a single, all-embracing experience; while, on the other hand, the pragmatists were right in holding to a pluralistic world of facts, but wrong in supposing that truths about those facts were relative to and dependent upon the changing and conflicting experiences of verification. In matters of ethics, however, the pragmatists were usually on the side of the angels. And as we were all utilitarians, we approved of their making *value* relative to the needs and satisfactions of individuals while regretting that they should fail to see the contrast in this respect between value and truth. When the same proposition seems true to one man and false to another, *one* of the men must be *wrong;* but when one and the same thing is felt as a good to one man and as an evil to another, *both* of the men can be *right.* One man's meat can be another man's poison.

IX. *Disagreements of the New Realists*

The six members of the organized group of New Realists had come to the movement for differing reasons and with

differing interests. And our views on metaphysics and even on some aspects of epistemology were by no means always in agreement. Which of these differences were the most important and how they should be formulated would themselves, I am afraid, be questions about which we should differ. As I am the one who is at present telling the story, I must of necessity formulate the points at issue between us in my own way and select as the most important those that seem most important to me. If in this matter or elsewhere in the article I inadvertently misrepresent the position of friends (or opponents), I here and now apologize.

From my standpoint, the differences that were most important both in themselves and in their influence on the later development of the neo-realistic movement centered first on the question as to the *"Behavioristic" nature of consciousness* and second on the question as to the *"relativistic" but existential status of the objects of illusion and error.* On these two questions Perry and Holt held views which I believed to be false. As to the positions of Pitkin, Marvin, and Spaulding on these points, I was never quite clear.

X. *The Fallacies of Neo-Realism: Behaviorism*

As to the nature of consciousness: Perry and Holt believed that an individual's awareness of an object consisted in a "specific response" of that individual's organism to the object. Now, an organism's response ("specific" or otherwise) to an object must be a *motion,* simple or complex, of some or all of the material particles composing the organism. Any motion must be up or down, east or west, north or south, or in some intermediate spatial direction. How can such a motion constitute what we experience as the "consciousness of" an object? (1) It does not resemble it in any way, unless in the small proportion of cases in which the object is itself a motion of material particles. (2) It cannot be directed toward it except in those cases in which the object of our consciousness is a spatial event contemporary with the organism's motion. (3) It affords no clue to our ability to apprehend secondary qualities, abstract

ideas, other minds, or events of the past and the future. (4) Worst of all, the organism's specific response or directed motion fails to provide for the *duration* or "specious present" that characterizes every experience and significantly differentiates it from all other events and relations. Each phase or momentary cross-section of a *motion* must be over and gone before a later one can come. But with *consciousness,* it is just the reverse: each phase or momentary cross-section is not over and gone when the successor appears, but endures along with it.

These objections, which applied with sufficient strength to the older forms of materialism, are even stronger against this new materialism or Behaviorism, which would identify the awareness of an object outside the body with a "specific response," that is, a hypothetical motion of the body or its parts toward that object. The peculiar self-transcending thing called *awareness* puts an individual in relation to objects that are either in other places and times or not in space and time at all. If it is to be identified with something in the organism, that something should be anything rather than motion.

XI. *The Fallacies of Neo-Realism: Objective Relativism*

The second of my differences with my colleagues concerned the existential status of the objects of perceptual illusions and of other erroneous experiences. Unless I have grossly misunderstood them in this matter, they held the theory of "Relativistic Objectivism," or (as re-christened by Lovejoy) "Objective Relativism." This is the view that every object that *appears* to be in space *is* in space, and, because different and mutually incompatible objects appear (though not to the same observer at the same time) to occupy the same space, it must follow that an object at each instant has no single position and shape by its own right, but many positions and shapes, each one of which is relative to some observer.

To illustrate: The rails over which your train has trav-

elled, when seen from the rear platform appear convergent, and when seen from directly above appear parallel. The convergent rails are apparently just as objectively existent in space as the rails that are parallel. But in each case the objective existence is not absolute but relative to an observer. Or, again, that which normally appears as two flat disks will, when viewed through a stereopticon, appear as a single solid sphere, and the latter is to the objective relativist as truly an occupant of space as is the former. Or, finally, what to a healthy man appears as a bed-post may to a man suffering from delirium appear as a serpent. Each of these objects will (it is claimed) exist objectively in space —the bed-post relative to the healthy brain, and the serpent relative to the fevered brain. In short, the things that exist objectively in space are to include along with the things ordinarily supposed to exist there the totality of actual and possible objects of perspective aberration and illusion, and even of dreams and hallucinations.

The objective relativist is, of course, careful to point out that for an objective existent to be relative to and in that sense dependent upon an actual (or possible) observer or organism does not at all mean a relativity to or a dependence upon *consciousness.* And my neo-realist colleagues would feel outraged if they were accused of having surrendered in their theory of error to that very subjectivism against which we were all pledged to revolt. And yet, despite the insistence that whatever appears can be relative to an observational context without thereby forfeiting its ontological status as a "physical" existent, it still seems to me that these relativistic objects do bear a suspicious resemblance to the sense impressions of Hume, Mill, and Avenarius; and that the New Realism in adopting them has evolved (or degenerated) into the old phenomenalism.

There are three objections to this theory of illusory perception which I feel justified in stating as a part of my story of American realism, not only because I think that they constitute a decisive refutation of objective relativism it-

self, but because the failure of New Realism to meet them was the cause and the justification for the coming of Critical Realism.

The first difficulty with objective relativism is its neglect of the profound *asymmetry* of the relation between the veridical and the illusory objects of perception. The asymmetry referred to consists in the fact that *the illusory perceptions can be explained by the veridical, whereas the veridical cannot be explained by the illusory.* The rails over which my train has travelled appear convergent from some viewpoints and parallel from others. If we assume that the rails *are* parallel, we can easily explain why and how and when an *appearance* of their being convergent will arise. But if we reverse this procedure and assume that they are in fact convergent, we cannot explain why the appearance of their parallelism should occur under the circumstances in which it does occur. Or, again, if the two flat disks in front of the stereoscope are in reality what they appear to be in what would usually be called veridical perception, we can then explain in terms of physical and physiological optics why these two disks when viewed stereoscopically should cause the appearance of a single sphere. But if we reverse the business and posit the solid sphere to be the physical fact, we cannot explain why or how it should ever give rise to the appearance of two flat disks.

Between the hallucinations of dreams and the experiences of waking life the same asymmetry is found. Dream worlds can be explained in terms of the waking world, but not the reverse. The dream hallucinations, like the perceptual illusions, can be as vivid and internally consistent as their veridical counterparts. Taken in themselves and by themselves, one appearance is as good as another. But when we interrelate them by that type of procedure which we call "explanation," their fatal differences in ontological status are easily discerned.

The second of the difficulties in the theory of objective relativism is a sort of generalization of the first. Real ob-

rect effects through the agency of whoever believes or even jects have two ways of producing effects; unreal or illusory objects have but one. An existent thing, be it material or mental, produces (1) direct effects, that is, effects in its own right, upon all other things; and it produces (2) indiapprehends it. The thing produces this second group of effects not *by right* as existing, but *by grace* as being an object of some experience. Now, while veridical or existent things produce both classes of effects, illusory or nonexistent objects produce only those indirect effects that come through the agency of the minds whose objects they are. Consider flounders and mermaids. Flounders affect the hooks that catch them and the stomachs that digest them, and in addition as objects of contemplation they inspire fishermen and perhaps poets to do things that they would not do unless they figured in the experience of those agents. On the other hand, the mermaids, while they, too, as objects of contemplation have inspired poets and perhaps fishermen to undertake various actions, they have never in their own right affected a hook or a stomach or anything else. Or, again, compare and contrast the real God that you believe in with the unreal god believed in by your theological opponents. You, of course, know that, while the effects of the latter are restricted to the fancies and resultant actions of the unfortunates who are deluded, the effects of your God are produced not only through the minds of His followers but upon the world as a whole.

This difference holds all along the line. Unreal objects, whether they be objects of hallucination and sensory illusion, such as stereoscopic spheres and converging railway tracks, or whether they be objects of intellectual delusion and mistaken belief, such as mermaids and false gods, are characterized by their utter inability to produce any effects except on and through the victimized minds in whose experience they appear.

It is because of his failure to realize this obvious but important truth that the objective relativist is guilty of a pre-

posterously impudent *understatement* when he says that the objects of so-called veridical perceptions are more "convenient" than the objects of so-called illusory perception. The former do not just happen to be more convenient. There is a reason; and the reason is that the veridical objects form a select aristocracy of appearance which owe their rank (1) to their ability to explain all the rest, and (2) to their ability to constitute a self-consistent and self-contained system of causally related elements. This is just another way of saying that real objects are such objects and only such objects as can produce effects directly upon one another as well as indirectly by grace of the minds that perceive them.

The last of the three weaknesses in the theory of objective relativism is based upon its unmanageable complexity. It may be possible to find room in a single spatial system for the totality of such perspective aberrations as railway tracks of various degrees of convergence and of pennies of various degrees of ellipticity; but if we add to these comparatively simple erroneous perceptions not only the stereoscopic spheres but the objects of every dream and every delirium, then not even the genius of a Russell or a Whitehead could devise a space or a space-time that would be adequate to serve as a bed, no matter how procrustean, in which such so-called and miscalled "physical existents" could all be placed and duly ordered. Yet each and all of these objects would be *physical* if by "physical" one is to mean whatever appears as spatial. Indeed, "Pan-physicalism" should be the awkward but accurately descriptive term to designate this phase of objective relativism in which the phobia against a "bifurcation" or division of spatial phenomena into subjective and objective has been indulged to such an extent as to confer the same ontological status upon everything that appears to have shape, size, and position. But if, in order at any price to avoid "bifurcation," we must practice this metaphysical egalitarianism, I for one would prefer the idealistic form of it. It is less difficult, even if not less gratuitous, to think of the totality of actual and pos-

sible appearances as being somehow synthesized and harmonized in one absolute consciousness than in any milieu of a spatial or physical kind.

Of course, the objective relativism which I have been attacking was not the only way out. Without lapsing into either dualism or idealism, it would have been quite possible for the New Realists to have dealt with the problem of error by the simple expedient of *denying any locus of any kind to the nonexistent things that figure in all erroneous experience,* as objects either of perceptual illusion or of conceptual delusion. For a thing not to exist is for it to exist nowhere. Any possible or subsistent object *can* appear in consciousness, and a few of them *do* appear there; but only a minority of such objects enjoy membership in the great society of interacting existents as well as in the little societies of objects for conscious minds. Just as one and the same point can be a member of two or more intersecting curves, so, as William James pointed out (for the first time, I believe, in a college class which I attended in 1898), can one and the same object be a member of the independent order of existence and at the same time and with no disruption of identity be also an object of experience. By accepting such a view of the matter, coupled with a refusal to accord any physical locus to the unreal objects of illusion and delusion, we can escape bifurcation or epistemological dualism without falling into either idealism of pan-physicalism.

I wish I could think of the theory just stated, which was my own solution of the epistemological problem, as the "Right Wing of New Realism"; but, alas, it takes more than one feather to make a wing, and as I was quite unable to stem the drift to the Left—that is, to Behaviorism and Objective Relativism—I fear it is historically correct to regard those movements as constituting the essence of American New Realism, at least in its later stage of development.

XII. *Critical Realism*

In or about the year 1920 a second group of American

philosophers decided to write a co-operative book in the interest of a realistic epistemology. The group was composed by George Santayana, formerly at Harvard, C. A. Strong, formerly at Columbia, A. K. Rogers, formerly at Yale, A. O. Lovejoy at Johns Hopkins, R. W. Sellars at Michigan, J. B. Pratt at Williams, and Durant Drake at Vassar. They called themselves "Critical Realists" and entitled their book *Essays in Critical Realism.* They regarded objects as directly presented to the mind (rather than as indirectly represented through images or copies), as a form of Naïve Realism—(which indeed it was) and they chose the word *critical* as suitably antithetic to the *naïveness* of which we, their predecessors, had been guilty.

As in the earlier group of six, so also in this later group of seven, the members combined agreement in epistemology with disagreement in metaphysics. Rogers was a skeptic, though with naturalistic tendencies. He had, however, been trained in idealism, and his realism was mellowed by a rich historical scholarship and an unusual tolerance of mind. Strong, Drake, and Sellars were all definitely naturalistic, though Strong supplemented his naturalism with a kind of pan-psychism in which Drake followed him, while Sellars supplemented his with an enthusiasm for Emergent Evolution. Lovejoy and Pratt were dualists in psychophysics as well as in epistemology, and constituted the Right Wing of the movement. Lovejoy put especial emphasis on the significance of *time* as affecting all aspects of nature and mind, and christened his philosophy "Temporalism." His pet aversions were Behaviorism and Objective Relativism, and against them he waged unremitting dialectical war, always urbane but devastatingly effective. Even further to the Right than Lovejoy and nearer than any of the others to a metaphysical spiritualism was Pratt, who combined a first-hand knowledge of the mystical idealisms of India with a strong sympathy for Christian theism. As for Santayana, his rich and many-sided philosophy is known to everybody. At least as naturalistic as Sellars, Strong, and Drake, he combined with his naturalism

and materialistic epiphenomenalism a Platonic realism more completely and consistently worked out than in any previous philosophy. This blend of a materialistic conception of the realm of *existence* with a Platonic conception of the realm of *essence* from which all things derive their meanings and their values, but not their destiny, has always seemed to me (second only to Bergson's) the most challenging and instructive of modern visions. Even to one who, like the writer, is unable to share Santayana's pessimistic belief in the *causal impotence* of Platonic forms, it is a great thing to have that vast, encompassing realm of essence or subsistence depicted in its purity and completeness and freed from irrelevant entanglements with the subjectivistic theories of knowledge and the teleological theories of nature which have traditionally obscured both its meaning and its beauty.

When one turns from the original and richly varying metaphysical affiliations of the Critical Realists to the bare nucleus of epistemological doctrine on which they were all agreed and which constitutes the definition of Critical Realism itself, I am myself unable to see anything that is either rich or original. The theory may be true, but it certainly is not new. It is, indeed, nothing but a restatement of the Epistemological Dualism which is explicit in Locke and Descartes and implicit in Hobbes, Spinoza, and the other modern philosophers prior to Berkeley.

This dualistic epistemology is very simple and clear. Its tenets are the following:

1. The world is composed of at least two sets of entities. (*a*) material things; and (*b*) mental states or ideas.

2. The ideas alone are given or presented as objects in consciousness, and in that sense are *immediately* known, while the material things are only *mediately* known, being inferred as the direct or indirect causes of the ideas.

3. The inferred material objects are always numerically or existentially non-identical with the immediately presented objects or ideas from which they are inferred; and

they are, furthermore, at least partially different in kind or nature from the latter.

From this point on, epistemological dualists differ from one another. Some of them, for example, Descartes and Locke, hold that the ideas inhere in a mental substance or spirit; others, for example, Hobbes and Spinoza, hold that the ideas do not inhere in a non-material substance, but that they are phantasms or inner aspects of the body or of the substance of which the body is the outer aspect. But it is important to realize that the question of whether the mind is numerically identical or numerically non-identical with the brain is a psychophysical or metaphysical question that has no direct bearing upon the epistemological question of the relation of ideas to the material objects that are inferred as their causes. In other words, the alleged epistemological duality of internal ideas and external objects is not aggravated by supplementing it with the psychophysical dualism of Descartes, nor is it mitigated by supplementing it with the psychophysical monism of Hobbes or of Spinoza.

On the epistemological dualism which has just been summarily expounded, there are two preliminary comments which can be made without prejudgment of the question of its ultimate validity or invalidity. First, the theory seems to account simply and clearly for the illusions and aberrations of sensory experience, and for what is generally assumed as to the physical and physiological processes that condition our awareness of events distant from us in space and time. Second, the theory seems to be as weak in accounting for truth as it is strong in accounting for error. If our experience affords direct access only to the internal realm of one's own mental states, by what magic can we jump out of our skins and infer or construct that external realm of material objects in which we undoubtedly do believe? If we emphasize the inaccessibility of an external world, we are led to skepticism, for we must doubt the extent to which that world which we can never experience can be proved to resemble the world that we can experi-

ence. In fact, we must be doubtful not only as to the nature of the external world, but even as to whether it can be shown to exist at all. On the other hand, if instead of concentrating on the numerical otherness of the external world, the epistemological dualist attends to the assumed qualitative likeness of that world to the world of his experience, then he is led not to skepticism but to idealism; for the world that he believes in and that he has alleged to be external now turns out to be an extension and elaboration of his world of ideas.

These two comments that I have just made briefly have been made at length and in detail by the whole history of philosophy subsequent to Locke.

Now what, if anything, have the Critical Realists done to mitigate the two sad dialectical sequels to epistemological dualism with which our philosophic tradition has made us familiar?

So far as I can see, their contributions to epistemology are mainly confined to a refutation of the *monistic objectivism* of the New Realists and to a restatement in slightly different form of the dualistic or representative theory of perception. In the matter of refutation, the most effective work, in my opinion, was done (1) by Drake in his arguments against any form of simple or absolute objectivism; and (2) by Lovejoy in his careful and extensive analysis of the fallacies of the relativistic objectivism of Whitehead, Russell, and the "Logical Positivists."

In the matter of restating the theory of dualistic realism, Santayana is the only member of the group whose thought makes any claim to an advance beyond the position of Locke and Descartes. Yet even in the case of Santayana, whose work in metaphysics is of such enduring value, I can find nothing of real novelty for the epistemological problem. To say that the object of awareness is always an "essence," and that one and the same essence can be exemplified both in subjective experience and in objective nature, does at first sight appear to bridge the traditional gulf between the internal realm of mental states and the

external realm of material things. But this appearance of novelty in thought is, I fear, due entirely to a novelty in language—the language of Platonism being employed to describe a situation that is ordinarily described in the language of Nominalism.

To illustrate the way in which the two languages can be used with equal propriety to describe one and the same situation, let us take the classic example of Tweedledum and Tweedledee. Here are two numerically or existentially separate individuals who are, however, in quality, kind, or essence, exactly the same. If we are in a nominalistic mood and desire to emphasize their existential duality rather than their qualitative sameness, we shall characterize them as "two different individuals, Dum and Dee, who happen to be perfectly similar in respect to their *Tweedleness.*" If, on the other hand, we are in a Platonic mood and desire to emphasize their qualitative sameness at the expense of their existential duality, we can characterize them as "a case in which one identical essence of *Tweedleness* happens to be exemplified or actualized twice, once in *Dum* and once in *Dee.*" But it is easy to see that the two characterizations are merely different verbal formulae equally applicable to one and the same situation. For suppose that only one of the twins were given in experience; then the other could not be inferred with any more validity by calling him "a second exemplification of the very essence that is experienced" than by calling him "a second individual exactly similar to the one that is experienced." Now, if for Tweedledum and Tweedledee we substitute, respectively, *ideas that are internal and given as mental states* and *physical objects that are external and inferred as being similar to the ideas in all or some of their properties,* we don't bridge the gap between the given and the inferred by replacing the Lockian *similarity of mental and physical things* with the Santayanian *mental and physical exemplifications of the same essence.*

I should regard the analysis just given as too obvious to call for statement, were it not for the fact that I believe

that the Critical Realists labor under the delusion that, quite apart from Santayana's Platonic *ontology,* the description of the exclusively internal objects of consciousness as "essences" works in a mysterious way to bridge the epistemological gap between mental states and the material things inferred from them, and thus constitutes a real advance beyond the traditional dualistic epistemology of Locke and Descartes. That such is not the case is (ironically enough) nowhere more clearly brought out than by Santayana himself, who quite frankly deduces a conclusion of pure skepticism from his own epistemology. For he tells us that the hypothesis that external things as the causes and correspondents of our ideas do exist cannot at all be proved even with probability. We *believe* that they exist on the basis of "animal faith," which is the completely nonrational but biologically necessary instinct to regard our private mental states as symbolic of a public material nature. No actual skeptic, so far as I know, has claimed to disbelieve in an objective world. Skepticism is not a denial of belief, but rather a denial of rational grounds for belief. Santayana's picturesque name of "animal faith" does not in any way differentiate his position from that of Hume or other skeptics who have bowed to the inevitable fact that our basic practical attitudes toward the world are psychologically founded upon instinct rather than logically grounded on reason.

XIII. *The Influence of American Realism on American Philosophy*

My story of Realism in America, sketchy and inadequate though it be, is already far too long. I shall conclude it with two comments of a nature and temper more cheerful than my mainly destructive analyses of the arguments of both the New and the Critical Realists might seem to warrant.

First, then, for our comfort let us remember that *unproven is not disproven.* Grant that I have been right in

arguing that New Realism, in its eagerness to *bridge the gap* between the mind and its physical world, has by its theory of Objective Relativism degraded the pure members of that world to an unseemly parity with the objects of error and fantasy, while at the same time, by its theory of Behaviorism, it has degraded the mind itself to a mass of "specific responses." Grant also that I have been right in arguing that Critical Realism has revived an old puzzle rather than contributed a new solution of it, and that in its eagerness to *preserve the gap* between the undisciplined hordes of mutually incompatible ideas and the single self-consistent system of univalent material entities it has made that gap as hopelessly unbridgeable as it was in the earlier dualistic realisms of Locke and Descartes. Grant me both of these negative appraisals of the two schools of American Realism, and I can still say that the object of their joint devotion: a physical world existing independently of the minds that inhabit it and use it, remains inviolate at least as an object of faith if not as an object of proof. And that "faith," which, as Santayana has said, is necessary to the life of animals, may be also necessary to the growth and health of philosophy.

Certain it is that both of the recent movements of realism, whatever the validity of their arguments, have brought a new and more invigorating atmosphere to American philosophy—and this is the second and last of my concluding comments.

Prior to the advent of the New Realism, academic philosophy was curiously out of touch with common sense, with science, and even with religion. The usual tenor of a course in "Introduction to Philosophy" was to convince the students, in the first place, that Berkeley's conception of the physical world was essential to philosophic truth; and, in the second place, that it was a kind of truth which, when accepted, made no essential difference to any particular belief. The net result of such teaching was the impression that philosophy was a combination of the paradoxical and the unimportant. As for science, its working cate-

gories and great discoveries were all too often belittled as "vicious abstractions from the organic unity of experience." Philosophers as such (with the notable exception of Josiah Royce) regarded themselves as under no obligation to acquaint themselves with what experts in various departments were finding out about the universe. Finally, as to religion, the attitude of the professors alternated between a condescending neglect of it as a crude embryonic form of real philosophy and an idealistic defense of it that gave an all too easy assurance of God, Freedom, and Immortality based, not on a study of the universe and its history, but on a dialectical analysis of the problem of epistemology.

Thanks to realism and also to Pragmatism, these thin manners of philosophy in the colleges have changed to something thicker and better. The teaching of metaphysics and ethics today is much more relevantly related to the natural and social sciences. And finally, the basic beliefs of religion are analyzed more often in terms of their connection with what is known about physical nature and human history than in terms of idealistic platitudes, with the result that on the one hand the values and the dangers of the church as a social institution are better understood, and on the other hand Theism itself is seen as an exciting and momentous hypothesis rather than as either a dialectical truism or a mere dogma of faith.

In short, to some extent, at least, there has come into our speculative thinking a revival of the ancient Ionian attitudes of curiosity as to the specific features of the universe and of wonder as to its central mystery. And for this restoration of health to American philosophy, the two movements of New and Critical Realism have, I believe, been largely responsible.

1. There are, for example, Hocking, of Harvard; Bakewell and Urban, of Yale; Leighton, of Ohio; Rieber, of Los Angeles; Adams, of Berkeley; Stace, Green, and Barrett, of Princeton; Sabine and Cunningham and Smart, of Cornell; Blanchard, of Swarthmore; and the Swabeys, of New York University.

SELECTED BIBLIOGRAPHY

Alexander, Samuel: "The Basis of Realism," Proc. of the British Academy, 1913-1914, pp. 279-314

Drake, D.: Mind and Its Place in Nature, 1925

Hicks, G. D.: Critical Realism, 1938

Hollands, E. H.: "Neo-Realism and Idealism," Philos, Review, XVII, pp. 507-517

Holt, E. B.: The Concept of Consciousness, 1914

Laird, John: A Study in Realism, 1920

McGilvary, E. B.: "Prolegomena to a Tentative Realism," J. of Phil., 1907

McGilvary, E. B.: "Realism and the Physical World," J. of Phil., 1907

McGilvary, E. B.: "A Tentative Realistic Metaphysics," in Contemp. Amer. Philosophy, 1930

Montague, W. P.: The Ways of Knowing, 1925

Montague, W. P.: The Ways of Things, 1940

Spaulding, E. G.: The New Rationalism, 1918

THE DEVELOPMENT OF AMERICAN PRAGMATISM

By John Dewey

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ANALYSIS

CHARLES S. PEIRCE, the founder of Pragmatism or Experimentalism or Instrumentalism, took the term Pragmatism from Kant. Dewey explains what Peirce meant by it, emphasizing the idea that the modification of existence by applying ideas or concepts to solve the problems and change the situations presented to us in experience is the real meaning of the pragmatist's theory as expounded by Peirce. Two erroneous interpretations of the doctrine are stated and refuted. William James carried forward the work of Peirce. Dewey shows how James was more closely connected with the British philosophers, Locke, Berkeley, Hume, J. S. Mill, Bain and Hodgson, than with Kant. This caused him to change Peirce's conception by making the particular consequences of an idea the test of its truth instead of its general consequences. But in so doing he broadened the application of the theory to include all ideas, especially religious beliefs. Dewey illustrates this with James's solution of the controversy between materialism and spiritualism. James also used the pragmatic idea to define the nature of truth, thus giving a new interpretation of the old coherence and correspondence theories of truth. Dewey points out the value in this theory and indicates its relation to English empiricism. He then gives an account of *instrumentalism,* the type of pragmatism which he founded. It departed from a Neo-Kantian basis and represented a reaction against the idealistic interpretation of Bradley and Bosanquet. It is also closely related to Watson's behavioristic psychology. But two of its most important ideas it got from James's *Principles of Psychology.* These are stated and interpreted by Dewey. This is followed by a statement of James's theory of the categories or universal concepts. He then formulates the theory of pragmatism that thought is an instrument by which man adapts himself to his environment.

THE PURPOSE of this article is to define the principle theories of the philosophical movements known under the names of Pragmatism, Instrumentalism, or Experimentalism. To do this we must trace their historical development; for this method seems to present the simplest way of comprehending these movements and at the same time avoids certain current misunderstandings of their doctrines and of their aims.

The origin of Pragmatism goes back to *Charles Sanders Peirce,* the son of one of the most celebrated mathematicians of the United States, and himself very proficient in the science of mathematics; he is one of the founders of the modern symbolic logic of relations. Unfortunately Peirce was not at all a systematic writer and never expounded his ideas in a single system. The pragmatic method which he developed applies only to a very narrow and limited universe of discourse. After *William James* had extended the scope of the method, Peirce wrote an exposition of the origin of pragmatism as he had first conceived it; it is from this exposition that we take the following passages.

The term "pragmatic," contrary to the opinion of those who regard pragmatism as an exclusively American conception, was suggested to him by the study of Kant. In the *Metaphysic of Morals* Kant established a distinction between *pragmatic* and *practical.* The latter term applies to moral laws which Kant regards *a priori,* whereas the former term applies to the rules of art and technique which are based on experience and are applicable to experience. Peirce, who was an empiricist, with the habits of mind, as he put it, of the laboratory, consequently refused to call his system "practicalism," as some of his friends suggested. As a logician he was interested in the art and technique of real thinking, and especially as far as pragmatic method is concerned in the art of making concepts clear, or of construing adequate and effective definitions in accord with the spirit of scientific method.

Following his own words, for a person "who still thought in Kantian terms most readily," '*praktisch*' and '*pragmatisch*'

were as far apart as the two poles; the former belonging in a region of thought where no mind of the experimental type can ever make sure of solid ground under his feet, the latter expressing relation to some definite human purpose. Now quite the most striking feature of the new theory was its recognition of an inseparable connection between rational cognition and rational purpose."[1]

In alluding to the experimental type of mind, we are brought to the exact meaning given by Peirce to the word "pragmatic." In speaking of an experimentalist as a man whose intelligence is formed in the laboratory, he said: "Whatever assertion you may make to him, he will either understand as meaning that, if a given prescription for an experiment ever can be and ever is carried out in act, an experience of a given description will result, else he will see no sense at all in what you say." And thus Peirce developed the theory that "the rational purport of a word or other expression, lies exclusively in its conceivable bearing upon the conduct of life; so that, since obviously nothing that might not result from experiment can have any direct bearing upon conduct, if one can define accurately all the conceivable experimental phenomena which the affirmation or denial of a concept could imply, one will have therein a complete definition of the concept."[2]

The essay in which Peirce developed his theory bears the title: "How to Make Our Ideas Clear."[3] There is a remarkable similarity here to Kant's doctrine in the efforts which he made to interpret the universality of concepts in the domain of experience in the same way in which Kant established the law of practical reason in the domain of the *a priori*. "The rational meaning of every proposition lies in the future . . . But of the myriads of forms into which a proposition may be translated, what is that one which is to be called its very meaning? It is, according to the pragmatist, that form in which the proposition becomes applicable to human conduct, not in these or those special circumstances, nor when one entertains this or that special design, but that form which is most directly ap-

plicable to self-control under every situation, and to every purpose."[4] So also, "the pragmatist does not make the *summum bonum* to consist in action, but makes it to consist in that process of evolution whereby the existent comes more and more to embody generals . . . "[5]—in other words—the process whereby the existent becomes, with the aid of action, a body of rational tendencies or of habits generalized as much as possible. These statements of Peirce are quite conclusive with respect to two errors which are commonly committed in regard to the ideas of the founder of pragmatism. It is often said of pragmatism that it makes action the end of life. It is also said of pragmatism that it subordinates thought and rational activity to particular ends of interest and profit. It is true that the theory according to Peirce's conception implies essentially a certain relation to action, to human conduct. But the rôle of action is that of an intermediary. In order to be able to attribute a meaning to concepts, one must be able to apply them to existence. Now it is by means of action that this application is made possible. And the modification of existence which results from this application constitutes the true meaning of concepts.

Pragmatism is, therefore, far from being that glorification of action for its own sake which is regarded as the peculiar characteristic of American life. It is also to be noted that there is a scale of possible applications of concepts to existence, and hence a diversity of meanings. The greater the extension of the concepts, the more they are freed from the restrictions which limit them to particular cases, the more is it possible for us to attribute the most general meaning to a term. Thus the theory of Peirce is opposed to every restriction of the meaning of a concept to the achievement of a particular end, and still more to a personal aim. It is still more strongly opposed to the idea that reason or thought should be reduced to being a servant of any interest which is pecuniary or too narrow. This theory was American in its origin in so far as it insisted on the necessity of human conduct and the fulfillment of some aim in order to clarify thought.

But at the same time, it disapproves of those aspects of American life which make action an end in itself, and which conceive ends too narrowly and too practically. In considering a system of philosophy in its relation to national factors it is necessary to keep in mind not only the aspects of life which are incorporated in the system, but also the aspects against which the system is a protest. There never was a philosopher who has merited the name for the simple reason that he glorified the tendencies and characteristics of his social environment; just as it is also true that there never has been a philosopher who has not seized upon certain aspects of the life of his time and idealized them.

The work commenced by Peirce was continued by *William James.* In one sense James narrowed the application of Peirce's pragmatic method, but at the same time he extended it. The articles which Peirce wrote in 1878 commanded almost no attention from philosophical circles, which were then under the dominating influence of the neo-kantian idealism of Green, of Caird, and of the Oxford School, excepting those circles in which the Scottish philosophy of common sense maintained its supremacy. In 1898 James inaugurated the new pragmatic movement in an address entitled, "Philosophical Conceptions and Practical Results," later reprinted in the volume, *Collected Essays and Reviews.* Even in this early study one can easily notice the presence of those two tendencies to restrict and at the same time to extend early pragmatism. After having quoted the psychological remark of Peirce that "beliefs are really rules for action, and the whole function of thinking is but one step in the production of habits of action," and that every idea which we frame for ourselves of an object is really an idea of the possible effects of that object, he expressed the opinion that all these principles could be expressed more broadly than Peirce expressed them. "The ultimate test for us of what a truth means is indeed the conduct it dictates or inspires. But it inspires that conduct because it first foretells some particular turn to our experience which shall call for just that conduct from us. And I should prefer to express Peirce's principle

by saying that the effective meaning of any philosophic proposition can always be brought down to some particular consequence, in our future practical experience, whether active or passive; the point lying rather in the fact that the experience must be particular, than in the fact that it must be active."[6] In an essay written in 1908 James repeats this statement and states that whenever he employs the term "the practical," he means by it, "the distinctively concrete, the individual, the particular and effective as opposed to the abstract, general and inert—'Pragmata' are things in their plurality—particular consequences can perfectly well be of a theoretic nature."[7 8]

William James alluded to the development which he gave to Peirce's expression of the principle. In one sense one can say that he enlarged the bearing of the principle by the substitution of particular consequences for the general rule or method applicable to future experience. But in another sense this substitution limited the application of the principle since it destroyed the importance attached by Peirce to the greatest possible application of the rule, or the habit of conduct—its extension to universality. That is to say, *William James was much more of a nominalist than Peirce.*

One can notice an extension of pragmatism in the above passage. James there alludes to the use of a method of determining the meaning of truth. Since truth is a term and has consequently a meaning, this extension is a legitimate application of pragmatic method. But it should be remarked that here this method serves only to make clear the meaning of the term, and has nothing to do with the truth of a particular judgment. The principal reason which led James to give a new color to pragmatic method was that he was preoccupied with applying the method to determine the meaning of philosophical problems and questions and that moreover, he chose to submit to examination philosophical notions of a theological or religious nature. He wished to establish a criterion which would enable one to determine whether a given philosophical question has an authentic and vital mean-

ing of whether, on the contrary, it was trivial and purely verbal; and in the former case, what interests were at stake, when one accepts and affirms one or the other of two theses in dispute. Peirce was above all a logician; whereas James was an educator and wished to force the general public to realize that certian problems, certain philosophical debates have a real importance for mankind, because the beliefs which they bring into play lead to very different modes of conduct. If this important distinction is not grasped, it is impossible to understand the majority of the ambiguities and errors which belong to the later period in the pragmatic movement.

James took as an example the controversy between theism and materialism. It follows from this principle that if the course of the world is considered as completed, it is equally legitimate to assert that God or matter was its cause. Whether one way or the other, the facts are what they are, and it is they which determine whatever meaning is to be given to their cause. Consequently the name which we can give to this cause is entirely arbitrary. It is entirely different if we take the future into account. God then has the meaning of a power concerned with assuring the final triumph of ideal and spiritual values, and matter becomes a power indifferent to the triumph or defeat of these values. And our life takes a different direction according as we adopt one or the other of these alternatives. In the lectures on pragmatism published in 1907, he applies the same criticism to the philosophical problem of the One and the Many, that is to say of Monism and Pluralism, as well as to other questions. Thus he shows that Monism is equivalent to a rigid universe where everything is fixed and immutably united to others, where indetermination, free choice, novelty, and the unforeseen in experience have no place; a universe which demands the sacrifice of the concrete and complex diversity of things to the simplicity and nobility of an architectural structure. In what concerns our beliefs, Monism demands a rationalistic temperament leading to a fixed and dogmatic attitude. Pluralism, on

the other hand, leaves room for contingence, liberty, novelty, and gives complete liberty of action to the empirical method, which can be greatly extended. It accepts unity where it finds it, but it does not attempt to force the vast diversity of events and things into a single rational mold.

From the point of view of an educator or of a student or, if you will, of those who are thoroughly interested in these problems, in philosophical discussions and controversies, there is no reason for contesting the value of this application of pragmatic method, but it is no less important to determine the nature of this application. It affords a means of discovering the implications for human life of philosophical conceptions which are often treated as of no importance and of a purely dialectical nature. It furnished a criterion for determining the vital implications of beliefs which present themselves as alternatives in any theory. Thus as he himself said, "the whole function of philosophy ought to be to find the characteristic influences which you and I would undergo at a determinate moment of our lives, if one or the other formula of the universe were true." However, in saying that the whole function of philosophy has this aim, it seems that he is referring rather to the teaching than to the construction of philosophy. For such a statement implies that the world formulas have already all been made, and that the necessary work of producing them has already been finished, so that there remains only to define the consequences which are reflected in life by the acceptance of one or the other of these formulas as true.

From the point of view of Peirce, the object of philosophy would be rather to give a fixed meaning to the universe by formulas which correspond to our attitudes or our most general habits of response to the environment; and this generality depends on the extension of the applicability of these formulas to specific future events. The meaning of concepts of "matter" and of "God" must be fixed before we can ever attempt to reach an understanding concerning the value of our belief in these terms. Materialism would signify that the

world demands on our part a single kind of constant and general habits; and God would signify the demand for another type of habits; the difference between materialism and theism would be tantamount to the difference in the habits required to face all the detailed facts of the universe. The world would be one in so far as it would be possible for us to form a single habit of action which would take account of all future existences and would be applicable to them. It would be many in so far as it is necessary for us to form several habits, differing from each other and irreducible to each other, in order to be able to meet the events in the world and control them. In short, Peirce wrote as a logician and James as a humanist.

William James accomplished a new advance in Pragmatism by his theory of *the will to believe,* or as he himself later called it, *the right to believe.* The discovery of the fundamental consequences of one or another belief has without fail a certain influence on that belief itself. If a man cherished novelty, risk, opportunity and a variegated esthetic reality, he will certainly reject any belief in Monism, when he clearly perceives the import of this system. But if, from the very start, he is attracted by esthetic harmony, classic proportions, fixity even to the extent of absolute security and logical coherence, it is quite natural that he should put faith in Monism. Thus William James took into account those motives of intinctive sympathy which play a greater rôle in our choice of a philosophic system than formal reasonings; and he thought that we would be rendering a service to the cause of philosophical sincerity if we would openly recognize the motives which inspire us. He also maintained the thesis that the greater part of philosophic problems and especially those which touch on religious fields are of such a nature that they are not susceptible of decisive evidence one way or the other. Consequently he claimed *the right of a man to choose his beliefs* not only in the presence of proofs or conclusive facts, but also in the absence of all evidence of this nature, and above all when he is forced to choose between one meaning

or another or when by refusing to choose, his refusal is itself equivalent to a choice. The theory of the will to believe gives rise to misunderstandings and even to ridicule; and therefore it is necessary to understand clearly in what way James used it. We are always obliged to act in any case; our actions and with them their consequences actually change according to the beliefs which we have chosen. Moreover it may be that, in order to discover the proofs which will ultimately be the intellectual justification of certain beliefs—the belief in freedom, for example, or the belief in God—it is necessary to begin to act in accordance with this belief.

In his lectures on Pragmatism, and in his volume of essays bearing the title *The Meaning of Truth,* which appeared in 1909, James extended the use of the pragmatic method to the problem of *the nature of truth.* So far we have considered the pragmatic method as an instrument in determining the meaning of words and the vital importance of philosophic beliefs. Now and then we have made allusion to the future consequences which are implied. James showed, among other things, that in certain philosophic conceptions, the affirmation of certain beliefs could be justified by means of the nature of their consequences, or by the differences which these beliefs make in existence. But then why not push the argument to the point of maintaining that the meaning of truth in general is determined by its consequences? We must not forget here that James was an empiricist before he was a pragmatist, and repeatedly stated that pragmatism is merely empiricism pushed to its legitimate conclusions. From a general point of view, the pragmatic attitude consists in "looking away from first things, principles, 'categories,' supposed necessities; and of looking towards last things, fruits, consequences, facts." It is only one step further to apply the pragmatic method to the problem of truth. In the natural sciences there is a tendency to identify truth in any particular case with a *verification.* The verification of a theory, or of a concept, is carried on by the observation of particular facts. Even the most scientific and harmonious physical theory is

merely an hypothesis until its implications, deduced by mathematical reasoning or by any other kind of inference, are verified by observed facts. What direction therefore, must an empirical philosopher take who wishes to arrive at a definition of truth by means of an empirical method? He must, if he wants to apply this method, and without bringing in for the present the pragmatic formula, first find particular cases from which he then generalizes. It is therefore in submitting conceptions to the control of experience, in the process of verifying them, that one finds examples of what is called truth. Therefore the philosopher who applies this empirical method, without the least prejudice in favor of pragmatic doctrine, can be brought to conclude that truth "means" verification, or if one prefers, that verification either actual or possible, is the definition of truth.

In combining this conception of empirical method with the theory of pragmatism, we come upon other important philosophical results. The classic theories of truth in terms of the coherence or compatibility of terms, and of the correspondence of an idea with a thing, hereby receive a new interpretation. A merely mental coherence without experimental verification does not enable us to get beyond the realm of hypothesis. If a notion or a theory makes pretense of corresponding to reality or to the facts, this pretense cannot be put to the test and confirmed or refuted except by causing it to pass over into the realm of action and by noting the results which it yields in the form of the concrete observable facts to which this notion or theory leads. If, in acting upon this notion, we are brought to the fact which it implies or which it demands, then this notion is true. A theory corresponds to the facts because it leads to the facts which are its consequences, by the intermediary of experience. And from this consideration *the pragmatic generalization is drawn that all knowledge is prospective in its results, except in the case where notions and theories, after having been first prospective in their application, have already been tried out and verified.* Theoretically, however, even such verifications or truths

could not be absolute. They would be based upon practical or moral certainty, but they are always subject to being corrected by unforeseen future consequences or by observed facts which had been disregarded. Every proposition concerning truths is really in the last analysis hypothetical and provisional, although a large number of these propositions have been so frequently verified without fail that we are justified in using them as if they were absolutely true. But *logically absolute truth is an ideal which cannot be realized,* at least not until all the facts have been registered, or as James says "bagged," and until it is no longer possible to make other observations and other experiences.

Pragmatism, thus, presents istelf as an extension of historical empiricism with this fundamental difference, that *it does not insist upon antecedent phenomena but upon consequent phenomena; not upon the precedents but upon the possibilities of action, and this change in point of view is almost revolutionary in its consequences.* An empiricism which is content with repeating facts already past has no place for possibility and for liberty. It cannot find room for general conceptions or ideas, at least no more than to consider them as summaries or records. But when we take the point of view of pragmatism we see that general ideas have a very different rôle to play than that of reporting and registering past experiences. They are the bases for organizing future observations and experiences. Whereas, for empiricism, in a world already constructed and determined, reason or general thought has no other meaning than that of summing up particular cases, in a world where the future is not a mere word, where theories, general notions, rational ideas have consequences for action, reason necessarily has a constructive function. Nevertheless the conceptions of reasoning have only a secondary interest in comparison with the reality of facts, since they must be confronted with concrete observations.[9]

Pragmatism thus has a metaphysical implication. The doctrine of the value of consequences leads us to take the future

into consideration. And this taking into consideration of the future takes us to the conception of a universe whose evolution is not finished, of a universe which is still, in James' term, "in the making," "in the process of becoming," of a universe up to a certain point still plastic.

Consequently reason, or thought in its more general sense, has a real, though limited function, a creative, constructive function. If we form general ideas and if we put them in action, consequences are produced which could not be produced otherwise. Under these conditions the world will be different from what it would have been if thought had not intervened. This consideration confirms the human and moral importance of thought and of its reflective operation in experience. It is therefore not true to say that James treated reason, thought and knowledge with contempt, or that he regarded them as mere means of gaining personal or even social profits. For him reason has a creative function, limited because specific, which helps to make the world other than it would have been without it. It makes the world really more reasonable; it gives to it an intrinsic value. One will understand the philosophy of James better if one considers it in its totality as a revision of English empiricism, a revision which replaces the value of past experience, of what is already given, by the future, by that which is mere possibility.

These considerations naturally bring us to the movement called *instrumentalism.* The survey which we have just made of James' philosophy shows that he regarded conceptions and theories purely as instruments which can serve to constitute future facts in a specific manner. But James devoted himself primarily to the moral aspects of this theory, to the support which it gave to "meliorism" and moral idealism, and to the consequences which followed from it concerning the sentimental value and the bearing of various philosophical systems, particularly to its destructive implications for monistic rationalism and for absolutism in all its forms. He never attempted to develop a complete theory of the forms or "structures" and of the logical operations which are founded on this conception. *Instrumentalism is an attempt to consti-*

tute a precise logical theory of concepts, of judgments and inferences in their various forms, by considering primarily how thought functions in the experimental determinations of future consequences. That is to say, that it attempts to establish universally recognized distinctions and rules of logic by deriving them from the reconstructive or mediative function ascribed to reason. It aims to constitute a theory of the general forms of conception and reasoning, and not of this or that particular judgment or concept related to its own content, or to its particular implications.

As far as the *historical antecedents of instrumentalism* are concerned, *two factors* are particularly important, over and above this matter of experimental verification which we have already mentioned in connection with James. The first of these two factors is *psychological,* and the second is a *critique of the theory of knowledge and of logic* which has resulted from the theory proposed by neo-kantian idealism and expounded in the logical writings of such philosophers as Lotze, Bosanquet, and F. H. Bradley. As we have already said, neo-kantian influence was very marked in the United States during the last decade of the nineteenth century. I myself, and those who have collaborated with me in the exposition of instrumentalism, began by being neo-kantians, in the same way that Peirce's point of departure was kantianism and that of James was the empiricism of the British School.

The psychological tendencies which have exerted an influence on instrumentalism are of a biological rather than a physiological nature. They are closely related to the important movement whose promoter in psychology has been Doctor *John Watson* and to which he has given the name of *Behaviourism.* Briefly, the point of departure of this theory is the conception of the brain as an organ for the coördination of sense stimuli (to which one should add modifications caused by habit, unconscious memory, or what are called to-day "conditioned reflexes") for the purpose of effecting appropriate motor responses. On the basis of the theory of

organic evolution it is maintained that the analysis of intelligence and of its operations should be compatible with the order of known biological facts, concerning the intermediate position occupied by the central nervous system in making possible responses to the environment adequate to the needs of the living organism. It is particularly interesting to note that in the *Studies in Logical Theory* (1903), which was their first declaration, the instrumentalists recognized how much they owed to William James for having forged the instruments which they used, while at the same time, in the course of the studies, the authors constantly declared their belief in a close union of the "normative" principles of logic and the real processes of thought, in so far as these are determined by an objective or biological psychology and not by an introspective psychology of states of consciousness. But it is curious to note that the "instruments" to which allusion is made, are not the considerations which were of the greater service to James. They precede his pragmatism and it is in one of the aspects of his *Principles of Psychology* that one must look for them. This important work (1890) really developed two distinct theses.

The one is a re-interpretation of introspective psychology, in which James denies that sensations, images and ideas are discrete and in which he replaces them by a continuous stream which he calls "the stream of consciousness." This conception necessitates a consideration of relations as an immediate part of the field of consciousness, having the same status as qualities. And throughout his *Psychology* James gives a philosophical tinge to this conception by using it in criticizing the atomism of Locke and of Hume as well as the a-priorism of the synthesis of rational principles by Kant and his successors, among whom should be mentioned in England, Thomas Hill Green, who was then at the height of his influence.

The other aspect of his *Principles of Psychology* is of a biological nature. It shows itself in its full force in the criterion which James established for discovering the existence of mind. "The pursuance of future ends and the choice of means for their attainment are thus the mark and criterion

of the presence of mentality in a phenomenon."[10] The force of this criterion is plainly shown in the chapter on Attention, and its relation to Interest considered as the force which controls it, and its teleological function of selection and integration; in the chapter on Discrimination and Comparison (Analysis and Abstraction), where he discusses the way in which ends to be attained and the means for attaining them evoke and control intellectual analysis; and in the chapter on Conception, where he shows that a general idea is a mode of signifying particular things and not merely an abstraction from particular cases or a superempirical function,—that it is a teleological instrument. James then develops this idea in the chapter on Reasoning where he says that "the only meaning of essence is teleological, and that classification and conception are purely teleological weapons of mind."

One might complete this brief enumeration by mentioning also the chapter of James' book in which he discusses the Nature of Necessary Truths and the Rôle of Experience, and affirms in opposition to Herbert Spencer, that many of our most important modes of perception and conception of the world of sensible objects are not the cumulative products of particular experience, but rather original biological sports, spontaneous variations which are maintained because of their applicability to concrete experiences after once having been created. Number, space, time, resemblance and other important "categories" could have been brought into existence, he says, as a consequence of some particular cerebral instability, but they could by no means have been registered by the mind under some outside influence. Many significant and useless concepts also arise in the same manner. But the fundamental categories have been cumulatively extended and reinforced because of their value when applied to concrete instances and things of experience. It is therefore not the origin of a concept, it is its application which becomes the criterion of its value; and here we have the whole of pragmatism in embryo. A phrase of James' very well summarizes its import: "the popular notion that 'Science' is forced on the mind *ab extra,*

and that our interests have nothing to do with its constructions, is utterly absurd."

Given the point of view which we have just specified, and the interest attaching to a logical theory of conception and judgment, there results a theory of the following description. The adaptations made by inferior organisms, for example their affective and coördinated responses to stimuli, become teleological in man and therefore give occasion to thought. Reflection is an indirect response to the environment, and the element of indirection can itself become great and very complicated. But it has its origin in biological adaptive behaviour and its ultimate function in its cognitive aspect is a prospective control of the conditions of its environment. The function of intelligence is therefore not that of copying the objects of the environment, but rather of taking account of the way in which more effective and more profitable relations with these objects may be established in the future. . . .

1 *Monist,* Vol. XV, p. 163.

2 *Ibid.,* p. 162.

3 *Popular Science Monthly,* 1878.

4 *Monist,* Vol. XV, pp. 173-74.

5 *Ibid.,* p. 178.

6 *Collected Essays and Reviews,* p. 412.

7 *The Meaning of Truth,* pp. 209-210.

8 In a footnote James gave an example of the errors which are committed in connection with the term "Practical," quoting M. Bourdeau who had written that "Pragmatism is an Anglo-Saxon reaction against the intellectualism and rationalism of the Latin mind. . . . It is a philosophy without words, a philosophy of gestures and of facts, which abandons what is general and holds only to what is particular." In his lecture at California, James brought out the idea that his pragmatism was inspired to a considerable extent by the thought of the British philosophers, Locke, Berkeley, Hume, Mill, Bain, and Shadworth Hodgson. But he contrasted this method with German transcendentalism, and particularly with that of Kant. It is especially *interesting to notice this difference between Peirce and James*: the former attempted to give an experimental, not an *a priori* explanation of Kant, whereas James tried to develop the point of view of the British thinkers.

9 William James said in a happy metaphor, that they must be "cashed in," by producing specific consequences. This expression means that they must be able to become concrete facts. But for those who are not familiar

with American idioms, James' formula was taken to mean that the consequences themselves of our rational conceptions must be narrowly limited by their pecuniary value. Thus Mr. Bertrand Russell wrote just recently that pragmitism is merely a manifestation of American commercialism.

10 *Psychology,* Vol. I, p. 8.

SELECTED BIBLIOGRAPHY

Moore, G. E.: Philosophical Studies, p. 97-146, 1922, Int. Lib. of Psy., Phil. and Sc. Meth., Harcourt

Rogers, A. K.: English and American Philosophy since 1800, p. 359-410, 1922, Macmillan

Riley, I. W.: American Thought from Puritanism to Pragmatism and Beyond, p. 279-340, 1923, Holt

Singer, E. A.: Modern Thinkers and Present Problems, p. 213-246, 1923, Holt

Montague, W. P.: Ways of Knowing, p. 131-172, 1925, Library of Philosophy, Macmillan

Hart, J. K.: Inside Experience, 1927, Longmans

Hook, S.: Experimental Logic, Mind, 40: 424-38, Oct., 1931

Lafferty, T. T.: Some Metaphysical Implications of the Pragmatic Theory of Knowledge, J. Phil., 29:197-207, April 4, 1932

Baum, M.: Development of James's Pragmatism Prior to 1879, J. Phil., 30: 43-51, Jan. 19, 1933

Meecham, H. G.: Pragmatic Note in the Gospels, London Quar. Rev., 160: 201-8, April, 1935

Sellars, R. W.: Critical Realism and the Independence of the Object, J. Phil., 34: 541-50, Sept. 30, 1937

Lodge, R. C.: Synthesis or Comparison, J. Phil., 35: 432-40, Aug. 4, 1938

McGill, V. J.: Pragmatism Reconsidered, Science and Society, 1939

Weiss, P.: Essence of Peirce's System: with reply by J. Buchler, bibliog. F. J. Phil., 37: 253-69, May 9, 1940

Dewey, J.: Vanishing Subject in the Psychology of James, bibliog. F. J. Phil., 37: 589-90, Oct. 24, 1940

Lamont, C.: John Dewey in Theory and Practice, Science and Society

DIALECTICAL MATERIALISM

By John Somerville

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It might be well to preface a report on this subject with a few words that are more or less personal. The writer feels as keenly as anyone else could his deficiencies and shortcomings in the face of the task assigned to him. What we ought to have is, of course, a statement from a contemporary Russian philosopher on the theme of dialectical materialism as a living philosophy. Unfortunately, circumstances make that impossible. The best that I can try to offer is not the living reality, but a reasonably accurate report upon it. Having learned the Russian language and been appointed Cutting Traveling Fellow of Columbia University to pursue researches abroad in the field of philosophy (continuing a second year by re-appointment), I had ample opportunity to examine contemporary sources in the Soviet Union and to inform myself at first hand of the chief developments in this school. From my observations I should have no hesitation in saying that, among us, dialectical materialism is probably one of the least understood philosophies in the world today, and certainly the most misrepresented. In many academic circles it is fashionable to be ignorant of it, and, at the same time, to abuse it. In this connection, it is curious and instructive to note what John Stuart Mill was moved to say in regard to misunderstandings and misrepresentations of the philosophy of utilitarianism:

"It may not be superfluous to notice a few of the more common misapprehensions . . . even those which are so obvious and gross that it might appear impossible for any person of candour and intelligence to fall into them; since persons, even of considerable mental endowments, often give themselves so little trouble to understand the bearings

of any opinion against which they entertain a prejudice, and men are in general so little conscious of this voluntary ignorance as a defect, that the vulgarest misunderstandings of ethical doctrines are continually met with in the deliberate writings of persons of the greatest pretensions both to high principle and to philosophy."[1]

Mill's words, unfortunately, apply to dialectical materialism today with as much force as they applied to utilitarianism a few generations ago. They sum up a situation which does little credit to philosophic scholarship, and in the light of which there would seem to be an acute need for even the simplest data concerning this philosophy. I shall therefore try to present, as accurately as I can, without entering into personal evaluation, some of its basic doctrines, as I found them being developed by those to whom they represented a living philosophy in the twentieth century.

I. K. Luppol, a contemporary Russian philosopher, once remarked that "Every revolution possesses its philosophy, but not every philosophy possesses its revolution."[2] Dialectical materialism as a living philosophy must be approached in terms of the fact that it possesses a "revolution," which is, of course, its organic relationship, historic and pragmatic, to the functioning institutions of the Union of Soviet Socialist Republics and their basic objectives. While this is not its only manifestation, or its only possible application, it is undoubtedly the most important sense in which dialectical materialism is a living philosophy in the world today, and we should be something less than realistic if we failed to take due account of that situation.

Yet there is that about the situation which will give any conscientious scholar pause. How many people are willing and able to overcome the enormous obstacles in the way of dispassionate examination and reasonably controlled interpretation of the data respecting dialectical materialism and its relation to Soviet society? At first glance one might expect that any scholar trained in the field of philosophy could be placed in such a category. Unfortunately, this does not seem to be the case. We find,

as Mill did, that "persons of the greatest pretensions both to high principle and to philosophy" are subject to the "common misapprehensions" and even to some of "those which are so obvious and gross that it might appear impossible for any person of candour and intelligence to fall into them." It would be well for us, in this regard, to follow Mill's example and set down, in candid terms, a few of these misapprehensions which are so deeply implanted in the popular and scholarly mind alike that it is questionable, in many cases, whether the most sober evidence to the contrary would be strong enough really to root them out and to overcome their accumulated effects. While there is neither time nor space, on the present occasion, to make an exhaustive presentation either of all the misconceptions involved or all the relevant evidence, enough can be presented to indicate the nature of the problem and the necessary direction of its solution.

1. "There is no philosophy in the Soviet Union; dialectical materialism is not a philosophy in any proper sense of the term." When this thesis is maintained, one of two things is usually meant. The first is that there is no pursuit of philosophy as a higher intellectual subject, no sustained technical interest in or contributions to problems of ontology, logic, epistemology, ethics or esthetics, no significant curricular attention to these fields in universities; all that exists, in this conception, is more or less crude political and economic propaganda. The facts run contrary to this impression. Activity in all fields of philosophy is widespread; at least one year of compulsory study of philosophy is the rule in universities and also in the great majority of other institutions of higher study and training, such as technical institutes (there is, of course, abundant opportunity for further work on an optional basis); this study of philosophy is not merely of the principles of dialectical materialism, but embraces an historical survey of the different schools and thinkers from pre-Socratic to contemporary times; research in the various fields of philosophy takes place in universities in connection with the teaching and learning

of the subject, and also in a special Institute of Philosophy of the central Academy of Sciences, which institute is made up of a score or more of qualified scholars engaged in full time research which entails no teaching schedule; there are a number of scholarly journals currently publishing articles in all fields of philosophy; books are constantly appearing in large editions, not only works of contemporary thinkers writing as dialectical materialists, but those of the classic representatives of the various schools in the history of philosophy, including idealists like Plato and Hegel and transcendental metaphysicians like Kant.[3] These are elementary data, which I wish it were not necessary to set down, but I have been solemnly assured of contrary "facts" on so many occasions by persons who have not investigated the situation that I feel it is well to forestall any misunderstanding of this aspect of the matter.

The second sense in which it is often urged that there is "no philosophy" in the Soviet Union is really hardly worthy of serious notice. It turns out, upon analysis, to be the view that there is no philosophy there with which the critic agrees, nothing *he* would regard as important, which is, of course, quite another matter. It is our purpose to examine the position of the dialectical materialist in regard to the basic issues of philosophy, and, having done so, we may agree or disagree with his world view as much as we wish. But to say that he has none is, as Santayana remarked in another context, not to "come within the region of profitable philosophizing on that subject."[4]

2. "There is a 'G.P.U.' in philosophy, a repression of all views except the 'official line,' deviations from which are physically punished." It is true that there existed a "G.P.U." in the Soviet Union, and, while that organization was in form abolished some time ago, other organizations were set up to perform like functions. All governments, however, in the interests of security, appear to possess some such organs which are active to greater or lesser degree, including our own "F.B.I." When I, like other Americans, took the Russians to task for their greater activity in this direction,

they usually replied that their danger was greater, and that they realized more keenly than we did the imminence of the war situation. In the light of subsequent events their view appears more impressive now than it did to many of us then. But in what sense did the Russian "G.P.U." or any succeeding organization concern itself with a field like philosophy? I know of no evidence that any individual was ever arrested, imprisoned or officially or physically punished in any way for philosophical "deviations," and I think I had as good an opportunity and made as great an effort to obtain such evidence as any other observer. There were, of course, a few cases of men whose names were associated with philosophy who were charged with, and admitted, offences covered by the criminal code. This type of case, exemplified by Bukharin, we shall consider presently. I do not claim to know everything that happened, but I feel obligated to state that what I did find has given me an acute distrust of the vast majority of statements on this head, made, no doubt, very sincerely, by "persons of the greatest pretensions, both to high principle and to philosophy." If even a significant minority of these statements were true, I should have found, for example, that the works of philosophers whose views were severely criticised and discredited in the two decisive controversies in the development of Soviet philosophy, those around the issues of mechanism and "menshevising" idealism, had been withdrawn from libraries and banned from bookstores. What I found was that I could read these works in libraries and buy them in bookstores, which I did.[5] I should have found that these philosophers, people like Timiriazev, one of the leaders of the mechanists, and Deborin, prominent as a leader of the "menshevising idealists" had been "purged," had disappeared. What I found was that they were active in their intellectual work and occupied important posts in the field of philosophy.[6]

3. "The treason trials": The case of a man like Bukharin is of quite a different character. He was charged with a long series of overt treasonable acts and protracted criminal

conspiracy with foreign governments. He admitted much of the accusation, more than enough to merit capital punishment under the criminal code of any country.[7] Like his co-defendants who also admitted guilt, he was executed. It is clear that he was not arrested or prosecuted for merely holding philosophical beliefs that were deemed incorrect, insomuch as his beliefs had been regarded as incorrect for a decade past. In fact, there had been severe criticism of his theoretical work ever since the time of Lenin,[8] but no state action was taken against him, nor were his books withdrawn from general circulation until his arrest and admission of criminal conspiracy. His works, like Trotsky's, were then considered to be actively functioning as a weapon against the security of the state at a time of imminent danger. While many of us might feel that this line of action was too severe, Soviet writers hold that few governments draw fine lines when they feel themselves threatened, especially by a war situation.

There was a time when the "treason trials" in the Soviet Union apparently seemed so fantastic to practically everyone in America that the only question was, how could they have persuaded men like Bukharin to confess to actions so patently absurd. In the light of momentous historical events in the last few years, they no longer seem so absurd. Such terms as "fifth columnist" and "Quisling" have now become household words. It is the growing opinion of informed observers, and the considered judgment, now made public, of responsible officials such as our former Ambassador to the U.S.S.R., Joseph E. Davies (ideologically completely antipathetic) that the "treason trials" served to clear out the Axis "fifth column" in the Soviet Union and to strengthen greatly its resistance to Hitlerism.[9] When we soberly contemplate what it might have meant to us in our war effort if the U. S. S. R. had capitulated to or allied itself with Nazi Germany, how many of us are not led to reassess much of our thinking during the last few years?

Should one apologize for thus speaking of the war and international problems in a philosophical essay? At first

blush, it might seem strange to touch on such matters. Yet how much stranger would it be if a work on living schools of philosophy could have been written without making reference to the present condition of our suffering world, and to what is involved in the titanic struggles by which it is now convulsed. In any case, everyone knows that discussion and judgment in regard to this particular school of philosophy have turned on such political issues and international events as those to which we have referred. Hence, the subject must be approached in terms of them if contact is to be made with what is in the reader's mind.

4. In this brief and inadequate attempt to set down certain facts and considerations which might contribute to a more informed approach to dialectical materialism as a living school than has hitherto been the rule, there is at least one further matter that should be touched upon: "the pact". The non-aggression pact between the U.S.S.R. and Germany was regarded as of a piece with the trials, and was at one time supposed to be the final and decisive proof that "Stalin's communism" and "Hitler's fascism" were basically alike, that they both were bitter enemies of democracy, and that the "showdown" would find them allied in the struggle against the bloc of democratic states. Events have not verified these hypotheses, but have invalidated them even more sharply and dramatically than they did the popular hypotheses respecting the trials.[10]

It was, of course, possible at any time for philosophic scholars to undertake a concrete analysis of the basic writings of figures like Mussolini and Hitler on the one side, and Lenin and Stalin on the other.[11] This would have served to show a gulf between Soviet and Fascist views quite as great as that between Fascist ideology and the general philosophic tradition of the western (pre-Fascist) world. But this approach was not taken. In the vast majority of cases, scholars preferred to make the inference that the underlying living philosophies must be similar, because the actual course of events seemed to suggest similar outcomes. The intent here was perhaps wholesome enough; to judge the philosophies

by their fruits. Evidently, the popular conception (largely shared by the scholarly mind in this instance) was misled as to what the fruits were and were going to be.

How could scholars be so misled in regard to the facts, and be so disconcerted in their expectations as to the course of large and momentous events? What was the source of their misconceptions and misapprehensions? In one sense, the operating condition was (and is) that the majority of scholars take the majority of their views about the Soviet Union, even in respect to its cultural, ideological and philosophical aspects, from the daily and weekly press. Sober analysis tells us that it is impossible to arrive at an adequate understanding of a complex civilization, especially in its higher and more technical manifestations, in this way. Even were there "good will" on the part of correspondent, editor and reader (which has not always been the case) this method would still be hopeless. Besides the fact that the vast majority of newspapers are predisposed against the Soviet Union on political, economic and social grounds, the correspondents and editors are simply not scholars or social scientists (with rare exceptions) and their selection, omission, treatment and mode of presentation of "news" is in most cases, for one reason or another, so close to being worthless from a scholarly or scientific point of view that the published stories must be approached with the most pervasive scepticism and an unremitting readiness to check against basic sources.[12] This situation had reached a point, in the recent past, where an occasional scholarly study of Soviet materials or conditions was simply not regarded as credible if it ran counter to the picture built up in the press (it would be labeled propaganda!) and where it might almost be said that it was counted as a distinct disadvantage, in passing judgment on anything connected with the Soviet Union, actually to have spent time in Russia in any serious attempt to make a scholarly study (you would then be regarded as prejudiced!). Such a situation, directed against any culture at any time, is disquieting. Directed against that of one of our indis-

pensable allies during a war which will decide the fate of civilization far into the future, it is egregiously dangerous.

However, even should we succeed in purging our minds of such recently cast Idols of the Tribe and Theatre as we have discussed, there are also certain older Idols of the Market Place that must be dealt with. The mere fact that any philosophy calls itself materialistic is commonly regarded, within our cultural boundaries, as sufficient provocation to have the door slammed in its face. In fact, the word materialism is usually employed as a form of accusation, a term of reproach rather than one of mere classification.[13] It is supposed to be very respectable to be suspicious of "matter" on principle, or at least to talk that way, as if it were naturally a source of danger, taken for granted as such by all high-minded people. It is fashionably pious to deal harshly with it, and constantly to contrast it, to its great disadvantage, of course, with the "spiritual," as if one or the other must be chosen, and there were no organic relationship between the two, as if an attachment to "ideal" or "spiritual" values necessarily involved a philosophic hostility towards matter. The growing student thus receives an anti-materialist bent in the course of his intellectual development to an extent he is rarely conscious of. He very seldom meets anyone who calls himself a materialist, and if he did, he would half expect to see a coarse, brutish fellow, probably with bad table manners and uncontrollable passions of the lower sort.

There is, of course, not a little provincialism, or even hypocrisy in all this, or, it might be more accurate to say, a false sense of shame. At any rate, the attitude exists, and it not only prevents people from giving materialism an open-minded hearing, it prevents them from ever inquiring what it means, which is perhaps the same thing.[14] Some might be inclined to say that under these circumstances the materialistic labels should simply be discarded, and this, in fact, is what takes place to a certain extent, consciously or unconsciously. People naturally tend to shy away from

unfavored labels, and much that might more accurately be called materialism is presented as empiricism, naturalism, humanism, realism and the like. But the Soviet thinkers take their cue from Marx and Engels, who were scornful of any deliberate dodges, and who coined a term for them—, "shame-faced materialism."[15] Like Santayana (in his "natural philosophy") they "boldly call it matter,"[16] and trust that if they can show there is nothing the matter with matter, it may become clear that there is nothing the matter with calling it matter.

Ontology — Methodology

The fact that dialectical materialism stands for a rejection of "metaphysics" has led many to assume it has no interest in or views on the broad and basic problems ordinarily associated with that term. Such is not the case. It is not the problems themselves that are rejected, but a certain way of approaching and attempting to solve them. It is the view of dialectical materialists that traditional systems of "metaphysics" have suffered from an overemphasis on concepts like changelessness and entities like idea or form taken in opposition to matter. They prefer to denote the general field of problems concerning the basic traits of existence by the more neutral term, ontology, and to draw a distinction between idealistic and materialistic ontology. This is not the only distinction that must be drawn, however, and failure to observe further refinements has also misled many. Not all that has passed as materialism in the history of philosophy is accepted, any more than all of what has passed as idealism is rejected. The attribute dialectical is here decisive, and its meaning must be as closely examined as that of materialism.

Ontologically, materialism means that matter, nature, the observable world is taken "without reservations," as real in its own right, neither deriving its reality from any supernatural or transcendental source, nor dependent for its existence on the mind of man. In this view the observable world has no need of a transcendental realm to give

it either logical support or moral dignity. If there is an eternal system of nature, there is no way, in reason, that we can speak of its creation, and if this system is infinite, there is surely nothing outside of it. For reasoning in this way, the dialectical materialist is not distinguished by (nor does he claim) originality. Many another philosopher, living and dead, would be inclined to regard such conclusions as well grounded. It is rather for the militant assertion of them, for an uncompromising insistence that their implications for other theories and for practical action be made explicit, for an unwillingness to lapse into polite silence or ambiguous compromise when the contrary is asserted, that the dialectical materialist is distinguished. He construes the question of the priority of matter or mind as one that ought to be settled by science. The only sense in which it is a real question, he feels, is unequivocally answered in favor of matter: the great balance of scientific probability indicates that what we call mind is, in the temporal order, a relatively late development in the complex evolution of matter, and that, logically, mind must be explained as an outgrowth, a functioning of matter. Materialist ontology tries to control its conclusions in a scientific spirit, and it can see no scientifically intelligible sense in which abstract ideas exist prior to or independently of something of which they are abstractions.

The term *dialectical* is used to express the basic set of characteristics found in inseparable connection with matter—a certain pattern of activity or behavior common to all levels of existence. The word *dialectical* is chosen because these basic traits or behavior patterns are pervasively dynamic and always result in the transformation of the given A into non-A. The ancient Heracleitian insight, shared by so many other thinkers, both of pre-Socratic times and following ages, that everything is continuously changing, has received detailed corroboration by modern science on such a scale that it is hardly surprising either that it should be taken as the point of departure for a system of ontology or that the formulation of it should now be much more

elaborate and precise than was previously possible. This formulation, on the ontological level, occurs in terms of the "three laws of materialist dialectics."[17] It is important to notice that these laws are regarded as possessing quite as much significance for the field of logic or methodology as for ontology. In fact, the discussion has here moved to the region of organic union between these two fields, and the laws of materialist dialectics must be contrasted to the "laws of thought" as conceived by the formal theory of logic as much as to the metaphysical theory of a changeless or essentially static reality.[18]

1. Law of the strife, interpenetration and unity of opposites. This law is asserted, in materialist dialectics, as a synthesis of countless empirical findings; everything which can be physically observed, mentally conceived or emotionally felt turns out, upon analysis, to be made up of oppositely acting elements which exist in a more or less unstable unity, that is to say, a unity which is subject to change. Why interpenetration? Because without it there would be no unity, not even the temporary unity of which things are obviously capable, without which there would be no discernible thinghood whatever. Why strife? Because the interpenetrating elements are not inert, but exercise influence of different sorts, exert themselves in different directions. Why opposites? Because different forces, active in the same field, may be called opposing forces.

If change is really universal and continuous nothing short of this law, it is held, will account for it. It is a dialectical as opposed to a mechanistic theory of change; motion is not conceived as imposed from without, or transmitted externally from one inert entity to another. Motion, in the last analysis, is self-motion; it is an inalienable property of matter, which can no more help moving, and hence, changing, than it can help existing.[19] In other words, change, motion are absolute; unity, stability are temporary, relative. In still other words, everything has a history, and the reason is to be found in the nature of its components and their internal relationship, as well as its relationships to other

things. A physical object in front of me, an idea in my mind, an esthetic or moral value which I feel or a social system in which I live, as well as I myself, are all in process of change, although they are at the same time distinguishable unities which, during any given instant, within their span of existence, are in relative stability.[20]

The formal "law of identity" is therefore regarded as a one-sided, over-simplified reflection of the nature of things, and, consequently, inadequate as a "law of thought." The first law of materialist dialectics, which may be expressed in the formula, A is A and also non-A, is taken as a more faithful reflection of the basic conditions of existence, and hence, as a more trustworthy guide in thinking and in constructing a theory of correct thinking.[21] It is considered evident that an A, all of whose parts are continuously changing, is managing to be both A and non-A during the same instant, unless, indeed, there can be found some instant during which nothing happens, no change takes place. If time is not made up of such instants (and if it were, Zeno would have said the last word[22]), then A is never merely A, but always is what it is always becoming, namely, non-A.

It should be emphasized that this law applies not only to what is ordinarily called the "physical" aspects of things, but to every aspect of existence. (These aspects are not considered as independent, but as dialectically connected.) The idea, precisely as a logical concept, the object of art, precisely in its esthetic capacity, is a complex of elements, which, because they are diverse, contrasting, opposing, form a unity that is relative and dialectical, and which is conditioned by the closest interplay with its own surrounding world of other ideas or esthetic values. An idea has content because it is made up of elements relating it to other ideas; no idea, as an idea, exists in vacuo. It is always a unit in a logical context, which context has meaning only in terms of further relationships, and so on. A work of art is the scene of resolved oppositions of some sort or other. If it contained no strife of opposites, it would be an absolutely

homogeneous entity, and indeed, would run the risk of being indistinguishable. Logical meanings and esthetic values not only possess their own essential internal dynamics, but have an organic history in time whereby meanings and values (let us hope) become enriched.

2. Law of the transformation of quantity into quality and vice versa. If the first law guarantees history, the second guarantees that this history will not be simply quantitative. The accumulation of quantitative changes in respect to given qualities always results in the emergence of new qualities which are as real in themselves as the original qualities, and which cannot be mechanically "reduced" to them, as if they were merely greater or lesser amounts of the original qualities. The oak tree is not a larger acorn, nor is the adult a larger infant, nor are the properties of the number two simply a doubled quantity of the properties of the number one. (If they were, two would not be an even number, but would simply be twice as odd as one.) Moreover, the only way to obtain a new quality is by quantitative increase or decrease of existing qualities.[23] Quality is defined as that "definiteness owing to which, things, phenomena, processes mark themselves off from one another and which makes them what they are."[24] But this qualitative definiteness (whether of things or ideas) "is not something permanent and unchanging, as metaphysicians think."[25] It is not something opposed to matter or to quantity, but something that grows naturally out of them, as part and parcel of their growth. The "properties" of a thing are the vital lines, not so much of communication as of transportation, by means of which the qualities of the thing are connected with other qualities and pass over into them. Qualities, so viewed, form a system of inter-relationships in motion, a system of *inter-transformations.* This system does not exist over and above the material order, but is the material order.

3. Law of negation of negation. The series of quantitative changes and new qualities is unending. Each state or phase of development (a "negation" of the previous one)

is considered a synthesis which resolves the contradictions contained in the preceding synthesis and which generates its own contradictions (to be later "negated") on a different qualitative level.

In one sense these laws all revolve around the fact of opposition, contradiction, antagonism. In yet another sense, they emphasize unity, connection, *zusammenheit*. These two emphases themselves are dialectically related: the unity is of opposites; the opposites through their interpenetration form dynamic unities. The basic fact is that matter moves, but the universal motion is not an aimless, fluid jumble revelling in the mere fact that it is not standing still. It conforms to patterns expressible as laws which are not asserted as a priori truths, but as generalizations already validated by so significant a volume of evidence that we may regard them as proved principles, and, at the same time, as indispensable basic hypotheses with which to approach further investigations. "Not a single principle of dialectics can be converted into an abstract schema from which, by purely logical means, it would be possible to infer the answer to concrete questions."[26] The laws are to be regarded as "a guide to activity and scientific research, not a dogma."[27]

Thus the dialectical method involves the consideration of things in terms of their change, development, evolution. If there is no immunity to change, and it is really continuous, then we must recognize that the ultimately important thing is not the "state" in which the subject matter happens to appear at a given moment, but the rate, direction and probable outcome of the changes which are taking place. There are, of course, differences of scale and scope, and some changes are so slow that for long periods and over wide areas, we may practically disregard them and still accumulate a considerable body of scientifically valuable truth. However, if we are not to be disconcerted and ultimately misled, we must operate in terms of a methodological perspective which not only takes account of the fact that the changes are taking place, but also prepares

us for a precipitation (which appears as a sudden leap in comparison to what has gone before) of new qualities as a result of the gradual accumulation of quantitative changes. The trouble with formalistic analysis is that it is oriented on the assumption that change is a passing moment in something essentially static. It could hardly be expected that a logic of self-identity would be the last word in the development of a scientific method which was to become centrally occupied with change, prognosis, evolution. Once the historical problem became the creation of what we call modern science, it was seen[28] that there was a certain inadequacy about formal logic, that it placed emphasis and centered attention in what was by that time the wrong direction. The continued attempt to express scientific method in terms of a logic in which the formalistic laws are regarded as axiomatic has contributed to a growing inability on the part of scientists to say what they mean or mean what they say in regard to the deeper methodological issues. How could it be otherwise when it is generally recognized, for example, that a cardinal methodological pattern of modern physical science is the assertion of an hypothetical proposition, the deduction of consequences from it and verification by experimental and observational discovery of the consequences, while this very procedure, from the point of view of formal logic, is an example of a fallacy—that of affirming the consequent. If our subject matter were really Forms, this would certainly be a fallacy to avoid. But where our subject matter is changing content in relation to which we are trying to gain prognosis, it is a procedure to follow, not to avoid.

In orienting itself upon content and change, in finding ontological roots for the possibility and necessity of prediction in every field, materialist dialectical logic claims to express with much greater fidelity than formal logic the basic nature of the method modern science actually uses.[29]

Epistemology

Not a very great deal of work has been done in this

field, and Soviet thinkers are not very satisfied with the way the subject has been developed by dialectical materialists so far. They feel that they possess at least a firm foundation in the conception that ideas, in any intelligible sense of the word, are always functions of a human mind reacting to the dynamic conditions of an objective world. In the pursuit of truth, the mind is usually attempting to reflect faithfully something that is distinguishable from the reflection, and that has an existence independent of it. The objectively existing state of affairs, in all its dynamic completeness, whatever it is, Lenin chose to call the truth. Our intellectual account of it, the mental reflection, which is doubtless never perfect, and in any historically limited moment can hardly lay claim to completeness, he called knowledge. Thus, in his formulation, truth is absolute and knowledge relative. However, there is no intrinsic incommensurability: as knowledge increases, it approximates more and more closely to the absolute truth.

The solipsist is laughed out of court. What else can one do with him? The price of taking himself seriously as a solipsist is that he does not allow anyone else to be in a position to give him a serious answer. The opponent who is taken seriously is, of course, the idealist who believes that matter does not exist independently of mind or that ideas exist independently of matter and its behavior, and that they are not necessarily reflections, distorted, disarranged, recomposed or otherwise, of the conditions of the observable world. And it may be added that all who philosophize in that way are called idealists, whether they call themselves that or not. It seems to the dialectical materialist that these people are "standing on their heads," which is an eccentric posture, but one that is not necessarily incompatible with a good deal of valuable reporting, if only the report be turned right side up.[30] That is, insofar as the content of the ideas, and the rules of operation with respect to them do in fact reflect the conditions of the external world (however inadvertently) the results may be of scientific significance. But where the canons of validity, truth or

methodology violate what may be found in the observable world, how many will be expected to do them honor? When once we leave the realm where the play of ideas is controlled by the course of things, it is the feeling of the dialectical materialist that we have left the realm of science, either for mysticism or merely for play.

Social Philosophy: Historical Materialism

The ontology which we have discussed is often referred to as the general theory of dialectical materialism. One of its chief applications is to the field of human history, by which it was probably first suggested. Because society, like everything else, is in process of change, social philosophy means above all a philosophy of history. Just as dialectical materialism is ontologically a theory of change, of evolution, so historical materialism, its social application, is a theory of historical change. All the usual issues of social philosophy are considered within this framework, and the "general theory of historical materialism", here under discussion, is meant to supply the methodological basis of all specific social sciences.

If human society really is undergoing continuous change, in some sort of evolution, then the problems of the present, or any social subject matter, can only be adequately understood and intelligently handled in reference to the past course of social movement, the dynamic interrelations of its component elements, and its probable future direction. This does not mean that we are the slaves, although there is certainly a sense in which we are the creatures of history. We can sometimes avoid probable future outcomes if we wish to, as when a physician warns us that if we go on in a certain way, we shall become sick. In any case, the condition of felicitous social action is an harmonious adjustment to the deeper currents whose movement will not be denied.

In the general scale of nature, contemplated with the eye of science, society moves with startling rapidity and changes with dramatic force. It is a vulgar myth that human

relationships are essentially the same today as they were thousands of years ago, or that the pattern of history is simply a gradual quantitative increase of good and decrease of bad factors. The explicit writings of the past are not always a successful antidote to this infectious vulgarity, for we tend to read our own situation into the past, not only where the text, by historical ambiguity, offers an opportunity to do so, but even where the text manifestly forbids it. Probably few can ever know, because of limited possibilities of living in alien cultures, how much they mistakenly attribute to the intrinsic character of human nature (and consequently regard as hopelessly unchangeable) which is really a function of social environment.

A problem of central importance in a scientifically conceived social philosophy is that of the basic causal factors and consequent general direction of the evolution of human society and its component institutions. That changes in the mode of sustaining life, in the system of economic production, should be selected as possessing primary significance will probably occasion little surprise in those who have any considerable experience of the world at large, or who read history widely and with candor. When the system of economic production suffers radical change, it is a safe generalization that everything else will sooner or later suffer accommodating change. [31] Naturally, there is a certain minimum of adjustment that is necessary, and social power tends to cluster around basic and indispensable things which are a product of social activity. While man doth not live by bread alone, it is one thing that he cannot do without, a fact that has inevitable consequential ramifications. Probatively, the matter must be decided on empirical grounds and by prognosis: in what comparative degree does this or any contrary hypothesis account for the changes that have taken place in the history of society, and enable us to deal fruitfully with problems of the present and to predict the way in which their moving content will develop in the future. The historical materialist is eager to be judged, and to judge, in that way.

Before we can grasp the underlying hypothesis and in order to avoid an astonishing variety of misconceptions, some of which are probably born of wishful thinking, we must draw several distinctions. Many critics of Marx's position apparently have not taken much pains to understand what he means by the term "economic". Within society, he speaks of an "economic foundation"[32] and a "superstructure"[33] which have extremely close, organic, reciprocal relations. However, before we can understand these relations we must distinguish, within the economic foundation, between what are called "forces" of production and "relations" of production. The forces of production include tools, instrumentalities, what we would call technics, and human labor power; the relations of production represent the legally or socially sanctioned relationships in which it is possible for men or groups to stand to one another in respect to economic goods, especially to the means of production. As we might naturally expect, there will be a certain consonance between the forces and the relations of production. Certain relations are only possible in respect to certain kinds of forces, and there is a constant tendency for the relations to be so adjusted as to get the most out of the system of technics. It is clear, for example, how medieval economic relations, such as that between a master and a serf, would (and did) stand in the way of a high degree of industrial development, which necessitated large metropolitan centers, reserves of free moving labor and concomitant conditions. Something would have to give way, either the further possibilities of development of the forces of production, or the old relations. Sooner or later the point is reached where the old relations are supplanted by others more congenial to expanding productive facilities.

This process, however, is not one of smooth and harmonous self-adjustment. It usually involves a vigorous struggle between groups of people standing to gain or lose by the changes involved. A class is defined as a group of persons having a common economic relationship to the means of production, such a relationship as brings them into conflict

with other groups. The conflict of such groups is called the class struggle.[34]

It is because the interests and whole way of life of certain groups are bound up, either advantageously or disadvantageously, with a certain mode of production, and, hence, with a certain system of property relations, giving people the most powerful (not the only) motivations to advocate or resist change—it is because of such considerations that the class struggle is regarded as the dynamic of history.[35] Probably no one could realistically expect such a struggle, if it takes place at all, to be confined within purely economic limits. Much more than economic matters are at stake. The given economic relations are protected by the existing system of law and government. Moral codes and religions naturally take a stand on issues involved. Philosophy, literature and art, if they are alive, must have an operating relationship (if only as escape vehicles) to the prevailing mode of life, the ways of "making a living" and the human problems generated thereby. In other words, the "social superstructure" will naturally be sensitive to the vital struggles taking place at the base. This sensitivity is effective in either direction, and the base also reacts to the superstructure, but in case of a contest, it is not clear how any group of people, in virtue of their associations within the superstructure, could muster (and hold) power superior to that of the governing economic class which also has favorable superstructural connections, without setting up a new governing economic class. And unless this is merely a change of persons, the new group will have been the proponents of some new set of economic relations, or of innovations in the mode of production, or both. In regard to the persons involved, the relationship to economic considerations may be either conscious or unconscious, direct or indirect, selfish or unselfish. But it must be there if the status quo is to be decisively altered.

However, it is not an easy thing to effect vast social transformations; it is not something society makes painless for itself, and it is a process the acute and subtle influences of

which penetrate to every nook and cranny of the social structure. The historical materialist, as he looks back over the great social transformations of the past, the development of tribal into ancient slave society, slave society into the medieval system based on serfdom, the feudalism of the "middle ages" into modern capitalism, with the concomitant modifications of institutions and cultural life, sees, in each case, essentially the same dynamic pattern, the concrete exemplification of the same strife of opposites and the accumulation of quantitative changes breaking up the social unity and crystallizing new qualities, which in turn are to be negated by further movement and changes. He sees, in each case, a mode of economic production which has outlived its usefulness and which, by gradual developments, innovations, changes, has given rise to new modes, which, however, are in a minority, are held back, whose possibilities of growth are obstructed by the prevailing system of economic relations which are expressed in law, protected by the state, sanctioned by the religious system, sympathetically reflected in the arts and philosophy (on the whole, that is—contrary currents will, of course, have set in, and struggles will have taken place on this level also). He sees that new needs and opportunities have arisen that can be adequately met only by the newly developing forces of production, that problems have been generated which the existing system can no longer solve. Yet it is the existing system, legalized and sanctified. Though its strength is waning, it is powerful. It is sincerely convinced that it is the very basis of civilization, which it is, and was, although it does not realize that it is unable to continue to be, and has forgotten how it came to be so. It is possessed of genuine dignity, and believes in its own legitimacy with every good claim except that of the future. Challenged, it usually resists with every weapon at its disposal, material and spiritual (since the whole way of life is in question), and a revolution is precipitated. When it succeeds, history has turned a corner and entered upon a broader highway. However, the struggle is protracted, the old order always dies slowly, and not in all respects at once. The new

usually works from the ground up, and it is a common sight of history to come upon new foundations whence the workmen are toiling busily upward, but which are still surmounted by the ancient banners and devices, towards which even the workmen themselves sometimes look up admiringly and reverently.

The view taken is that private capitalism has also reached the point in its evolution where it can no longer solve the problems which it generates, (such as chronic unemployment and poverty in the midst of plenty), where the immense productivity of which its technics are capable is frustrated by the system of economic relations, which involves private ownership of the means of production, consequent private hiring and firing, and socially unplanned and uncoordinated production for a competitive profit market. Such economic practices are seen to entail a scarcity of goods for the masses, because of lack of purchasing power, while production is artificially restricted and millions who want work are not productively employed. It is held that the old private and competitive economic relations, once so salutary and progressive in liberating production from the paralyzing restrictions of feudalism, and in meeting new demands which the medieval economic order could not satisfy and the cultural order would not recognize (except in so far as it denied the status quo), must be replaced by others which show promise of releasing the accelerating abundance of which productive forces are now capable, and providing employment and economic security for all. Such relations are seen to turn upon collective ownership of productive technics and socially planned production for general use rather than private profit. The proletariat, suffering most acutely the growing severity of economic crises and stimulated by the growth of socialist ideas, organizes and moves towards these objectives. The view taken is that peaceful attainment of them is possible, but will probably be violently resisted by privileged minorities, provoking a contest of force in which the working class majority will eventually triumph the world over. The victory of the proletariat is

considered morally justified on the ground that its interests coincide with the realization of productive potentialities, with the fuller development of technics of all kinds, with that spread of the goods of life, both economic and cultural, which extends, in proportion, the possibility of leading the good life. The proletariat finds itself in the historically critical and ethically pregnant position where, in order to attain to a decently human level of existence, in order to solve its problems as a class, it must abolish itself as a class, and where, in order to abolish itself as a class, it must abolish classes, groups having antagonistic economic relationships to the means of production. If this could be said of any other class, historical materialists would identify their hopes with it, and would champion that class rather than the proletariat. But it can not: other classes, as classes, see the possibility of attaining a sufficiently valued level of existence without abolishing themselves as a class or the class structure of society. This feeling is shared by individual members of the proletariat who see their salvation in rising into the class above them, as, contrariwise, members of the upper classes, as individuals, are morally troubled by class differences, and set themselves the ethical aim of striving for a classless society. It seems to the historical materialist that the great social problem of modern times is the existence (and consequently, the necessity of abolishing) such a phenomenon as a proletarian class, and that capitalism needs a proletariat longer than society needs capitalism.

The first stage (now regarded as attained in the U.S.S.R.) in the development of the new society is called socialism. It is characterized economically by collective ownership of the means of production, the abolition of private profits, surplus value,[36] exploitation therefrom, economic classes and involuntary unemployment; politically, by a state based upon the dictatorship of the proletariat; culturally, by the extension and development of artistic, scientific and educational facilities by state planning and the lowering of economic barriers, the abolition of race discrimination through state enforcement, the granting of unprecedented economic and cultural

opportunities to women, and a struggle against all cultural and social institutions which oppose the socialist society and attempt to obstruct its development.

The second stage is called communism. It pre-supposes a functioning economy of abundance on the basis of an unhampered utilization of productive potentialities, as a result of which it will be possible to apply the principle, "From each according to ability, to each according to needs"[37] instead of, as under socialism, "according to work performed." By intelligent planning, both economic and cultural, it will then become possible, it is felt, to eradicate the psychological and social antagonisms and the cultural lags between mental and physical labor, and those between town and country. When communism has attained a world wide scope, it is expected that the state, as organized force (army, jails, police and the like), will gradually be rendered superfluous, since it is considered that, in a society where irreconcilable class conflicts will have disappeared and unlimited opportunity for educational and cultural development is really extended to all, people will learn to live in accordance with valued standards without the compulsion of physical force represented by a special apparatus of state power. In other words, a stateless administration of things will have become possible. It is now held that the principal features of communism, with the exception of the "withering away" of the state, are historically possible within one country.[38]

The word "dictatorship" is used as a synonym for that aspect of the state which represents a special apparatus of physical force standing over the people. Such an institution was not always a social necessity; it became such upon the breakdown of the primitive communism of tribal society and the consequent rise of classes with their otherwise irreconcilable conflicts. As these terms are used, therefore, it is held that the state always has the character of a dictatorship of the ruling economic class in the sense that the law and political institutions express and protect the economic relationships on which the power and privileges of the dominant class depend. The dictatorship of the proletariat is

regarded as the necessary prelude to classless society and is considered to represent an extension of democracy in which the political structure can really operate for the welfare of majority groups, being based on an economic system having a like relationship to the welfare of the majority.

It is a widespread error that all regimes represent themselves as democracies and talk in terms of democratic ends and ideals. The prevailing tenor of the political thought of both Italian Fascism and German Nazism is and has been a sharp and explicit rejection of democracy, not only in practice, but as an ideal. Dialectical materialists in general and Soviet thinkers in particular have from the beginning developed their political thought in terms of democracy; in fact, the concept of democracy is the central one in their entire structure of socio-political objectives and values.

Insofar as this is an intellectual problem amenable to clarification by reference to philosophical sources and sociological data, the key to its solution lies in the fact that the Soviet conception of democracy has certain differences from others and is claimed to be a wider and deeper conception than any that has hitherto received either theoretical elaboration or practical application. In the abstract, one might think that a fact of this sort would offer little difficulty, as, historically speaking, the concept of democracy is extremely flexible and has been associated with very different content at different times and under different circumstances. Athenian democracy included legalized slavery, as did our own up to the Civil War. British democracy includes an aristocracy vested with various hereditary privileges which make no insignificant mark in the national life. Religions which stand for centralized control of spiritual matters on the basis of supernaturally revealed authority come forward as advocates of democracy, while many of the founders of the modern democratic tradition in eighteenth century France were outspoken atheists.

What appear to be the decisive factors to most of those who deny that the Soviet conception is "genuine" democracy are two closely connected considerations: the absence of

an individualized laissez faire economic system and of a multi-party political system. If it could be established that either of these is of the essence of democracy, Soviet thinkers would probably be the first to proclaim that their system is not democratic. Their very philosophy of democracy, however, consists in the elaborated view that such is not the case, that historical conditions have moved to a point where the laissez faire economic system, which powerfully served democratic ends when the chief problem was to overthrow feudalism and undertake vigorous expansion along newly opened frontiers, now stands in the way of the actual realization of economic, political and social democracy. They feel that democracy must be conceived and applied not only within a political framework, but in all the chief institutions of social life. Under contemporary conditions, they hold, economic democracy, the economic welfare and security of the whole people can only be achieved by social ownership of the means of production. Such economic democracy is regarded as the pre-condition of racial democracy because where private ownership of the means of production and private hiring in respect to them are protected by law, discrimination in the most vital areas is, in effect, legally permitted, and "racial equality" becomes a more or less formal matter. In the Soviet Union any form of "segregation", dwelling "restrictions", educational "quotas" or employment "preferences" in matters of race are severely punishable by law. The removal of economic barriers to higher education[39] and the promotion of the economic emancipation of women through actual as opposed to formal lack of restrictions in respect to training and employment opportunities they also regard as contributions to and extensions of democracy.

Their view is that such democratic ends neither could nor should be accomplished by a multi-party political system. They consider that, while a private, laissez faire economic system with a state which is consequently not in a position to assume positive responsibility for the functioning of institutional life is morally obligated, in the light of democratic ideals, to preserve a multi-party system and to protect

the unrestricted activity of the most diverse parties (although it seldom discharges this obligation fully), a socialized economic system, with a state which does assume positive responsibility for the functioning of institutional life is morally obligated, precisely in the light of democratic ideals, to protect every criticism and every viewpoint directed towards strengthening the positive system, with its delicately coordinated interrelations, for which responsibility has been assumed, and to protect that system from political, economic or cultural activity directed against it.[40]

Philosophy of Art, Esthetics

There is much that might be said about the esthetics of dialectical materialism (or of historical materialism, which is considered to supply the methodological basis for esthetics and ethics as well as for the specific social sciences), but the present writer hesitates to report upon it in any detail; if he has already taken undue space, which he fears, he can only point to the fact that it was necessary to deal with somewhat unusual problems.

The dialectical materialist observes that in the "bourgeois" or capitalist world, the philosophy of art tends to be identified with the esthetics of art, so that it comes to center around the problem of beauty. In his conception, the "philosophy" of art should deal with much more than the analysis of beauty, just as esthetics in general deals with much more than art. From a philosophic point of view, the origins of art and its relations to the rest of man's life are as important as its esthetic form; in fact, according to the thesis of the historical materialist, the esthetic problems themselves must be treated on the social level if we are to do justice to them and to their history.[41]

Art does not exist in nor is it created out of a vacuum. It exists in society and is created out of the impact of the world on the personality of a human being. The artist draws his materials and selects his problems, aims and values from the world of society and nature and his reactions to what it can offer him. What other source can he draw upon?

Being an artist, he works in materials peculiarly susceptible of esthetic effects, in terms of line, color, figure, image, action and the like. Even the most imaginative or "abstract" art represents a selected re-arrangement of what may be found in the common world of experience. Art is always a reflection of reality, but never a mirror image. What it reflects it can sometimes convey only fantastically. It is good to the extent that the reflection is faithful in its own terms and possessed of positive esthetic value.[42] To stress only the fidelity of reflection is to run the risk of neglecting the distinction between art and science, while to stress only the esthetic quality is to overlook too much in the relations between art and life.

Moreover, art is not viewed as a mechanical combination of truth and beauty, as if the problem were to recite Euclid in melodious tones. Each art possesses its own qualitative richness which is a fusion of reflective and esthetic elements, capable of making its own appeal, unique and complete, to a whole being, even when its appeal is but an escape from the world of social experience, or, more accurately, from certain aspects of that world.

It is the fact that art is not a private affair, that it is rooted in something besides the artist which is taken by the dialectical materialist as warrant for getting beyond the *chacun à son goût* impasse. If nothing more could be said about art than that it was a source of enjoyment, then indeed we might put a period to the discussion with proverbs. But it is connected in all sorts of ways with a world outside its own sensuous stimulations, and must be dealt with in terms of these connections as well as in any other way.

To reflect reality imaginatively does not mean to deal with it arbitrarily. It is just as possible to falsify reality in a fable as in any other medium. Hence, if we are conscious of our ontology, it must be brought into the discussion. What art in its own way will take account of, from this point of view, is the fact that reality is dynamic, and that the peculiar dynamic of social reality, which is a very abundant source of subject matter for the arts has been a struggle of classes (at

least, in the period of "written history"). This is not to say that the artist will not be a good one unless he is a conscious philosopher and a dialectical materialist to boot. Marx and Engels admired Balzac as much as Lenin did Tolstoy, although both writers, in their explicitly formulated philosophical views, were bitter opponents of materialist tendencies.[43] But each depicted, with powerful esthetic effect the elements and forces of a certain period so that it "lived", suggested its past and was compatible with its future.

Socialist realism consequently sees a work of art in relation to its origin in society, its role and effect in the struggles thereof, and its reflection of the dynamics of reality. What is now called vulgar sociologism, an earlier trend in the Soviet Union, was prone to see art as a reflection only of the "class consciousness" of the author. As a result of protracted controversy and discussion, this point of view was discarded as mechanistically narrow and socially arbitrary.[44]

Ethics

Perhaps the most vulgar of all the misconceptions of dialectical materialism is that it is not interested in or that it denies the existence of "spiritual values" in the sense of moral ideals, the things of the mind, the esthetic appeal of the fine arts, that it sets store only by wealth or material goods or gross pleasures. This view is probably based on the assumption, unconsciously made, that materialism (in spite of what it says) really believes in the existence of two disparate realms, spirit and matter, and, in somewhat cynical fashion deliberately chooses the latter. The issue, however, is not the existence or non-existence of "spiritual values", but their source, origin and location. In seeing in man and matter, humanity and nature the origin and fullfillment of values, in rejecting the notion of a transcendental realm to which to refer values, the dialectical materialist feels that he is not lowering the spiritual, but elevating the material.[45] He does not, like old Khayyam, find Paradise in the bottle having lost it in the skies, nor is he given to brooding about death[46] or calling the universe harsh names as he

weeps melodiously into his glass. His ethics is in no way grounded in metaphysical disillusionment; he bears no grudge against the universe, but, on the contrary, has faith in it and in man's destiny.

To say that the ethics of dialectical materialism is social is not to imply any negative attitude towards the fulfillment or enrichment of individual personality. In fact, the conception is that the proper organization of society is the precondition of the fullest ethical development of the individual. It is partly for this reason that there has not been a great deal of theoretical elaboration of values. The main point is felt to lie, not so much in the formulation of new values as in the actual realization by the whole people of values that already command practically universal agreement — normal health, economic security, the higher development of the individual's esthetic and rational capacities, a sense of human dignity, brotherly love. What the dialectical materialist is prone to observe is the extent to which the existing system of social institutions limits the availability of such goods in respect to different sections of the population. Class society makes it all too difficult for the masses to lead the good life in terms of the economic requirements and cultural opportunities which are necessary.[47] Only in a classless society which extends economic security to all, and where there are no artificial (economic, racial or social) barriers to higher training and development will everyone who is capable of leading the good life find it possible to do so. Actually, in the modern history of the western world, the development of "humanism" extended the possibility of the good life to the growing bourgeois, commercial, industrial groups, commoners outside the charmed circle of hereditary aristocrats and landed dignitaries. A great advance, it was nevertheless historically limited by the nature of the economic system within which it grew up, a system which needed a large class of wage workers whose conditions of life are usually described by such a term as "under-privileged", and which remains as a class no matter how many individuals manage to rise out of it. Soviet thinkers oppose to bourgeois

humanism, which is not prepared to advocate the elimination of capitalism, proletarian humanism, which sets itself the aim of abolishing classes through the establishment of socialism and communism.[48]

It is a great error to suppose that the "class point of view" in ethics entails a pervasive relativism which signifies that each class is right from its own point of view. On the contrary, just as dialectical materialists recognize an absolute truth, so they recognize an absolute right, vaguely and generally formulated in such a principle as, each for all and all for each. Their view is that the class interests of one class serve to motivate it to resist the application of such a principle, while the class interests of another class may motivate it to advocate its application. They feel the proletariat is now historically in this position, and, hence, that to do justice to it will be to raise all humanity to a social level where such an expression as *homo homini lupus* will not have proverbial significance.

1. Utilitarianism, Chap. II.
2. Na Dva Fronta. p. 149.
3. During the Soviet regime up to 1938 200,500 copies of Hegel's works were printed and sold, 55,000 copies of Spinoza's and 78,300 copies of Aristotle's. "Kulturnoe Stroitelstvo S.S.S.R." Gosplanizdat. Moscow, 1940. p. 212. "Philosophic Abstracts", A Quarterly. N. Y. carries abstracts of current philosophic works available here.
4. The Sense of Beauty, p. 189.
5. Following is a list of some of the books by such authors which I purchased: Axelrod: Idealisticheskaia Dialektika Hegelia i Materialisticheskaia Dialektika Marxa. Protiv Idealizma. Bogdanov: Empiriomonizm. (One of the works against which Lenin wrote his "Materialism and Empirio-Criticism") Deborin: Karl Marx i Sovremennost. Vvedenie v Filosofiiu Dialekticheskogo Materializma. Sovremennye Problemy Filosofii Marxizma. Bazarov, Berman, Lunacharskii and Others: Ocherki po Filosofii Marxizma. (Mentioned by Lenin in the preface to "Materialism and Empirio-Criticism" as one of his chief targets, a work by "would-be Marxists") Sarabianov: Dialekticheskii i Istoricheskii Materializm. Stepanov: Istoricheskii Materializm i Sovremennoe Estestvoznanie. Timiriazev: Estestvoznanie i Dialekticheskii Materializm.
6. Deborin could hardly help being amused when, on the occasion of an interview with him in his office as Chairman of the Social Science Section (including philosophy) of the Academy of Sciences, I confronted him with an account in an American journal, scholarly in its

claims, to the effect that he, Deborin, was a nervous wreck in a "concentration camp". Timiriazev is one of the chief editors of the leading philosophical journal, "Pod Znamenem Marxizma".

7. Cf. Verbatim testimony in English translation: Report of Court Proceedings in the Case of Anti-Soviet Bloc of Rights and Trotskyites. People's Commissariat of Justice of the U.S.S.R. Moscow. 1938. Also, Report of Court Proceedings in the Case of the Anti-Soviet Trotskyite Center. People's Commissariat of Justice of the U.S.S.R. Moscow. 1937.
8. Cf. Lenin: Selected Works, v. IX, "Once Again on the Trade Unions — The Present Situation and the Mistakes of Trotsky and Bukharin", especially the concluding section, "Politics and Economics, Dialectics and Eclectics".
9. Cf. speech of Lord Beaverbrook, highly placed Conservative British official: "Political purges? Of course. But it is now clear that the men who were shot down would have betrayed Russia to her German enemy." Text printed "New York Herald-Tribune", April 24, 1942.
10. In some instances there has been a tendency, curious from the logical point of view, and no doubt inspired in part by wishful thinking, to say that the way in which the Russian people have conducted the war, their morale, discipline, courage, organization, loyalty and readiness to make sacrifices have nothing to do with their present regime or the basic philosophy thereof, that we are not really allied with Soviet Russia, but with the Russian people, who are performing heroic feats in spite of the Soviet regime or anything it stands for. It is hardly necessary to say that any scientific sociology would never countenance what seems to be the peculiar method of such critics, namely, to ascribe whatever they do not like to the regime, and what they like to the people. In this case the method is even more peculiar, since the very things they like were conspicuously lacking under the Tsarist regime in the preceding war, when Russia was the first large power to disintegrate and succumb before the German onslaught. As we might expect, inscrutable mysteries are invoked, and in this connection we have heard much of the "Russian soul"! If this expression has any meaning, we should have to conclude that its salutary manifestations are capable of being discouraged by one regime and encouraged by another.
11. For example, one might examine Mussolini's "The Doctrine of Fascism" and "L'Etat corporatif" and Hitler's "Mein Kampf" together with speeches on cultural themes, such as art, and compare and contrast them with a representative selection of Lenin's philosophical writings (his works comprise more than sixty volumes) such as that contained in volume XI of his "Selected Works" together with "State and Revolution" and Stalin's two volumes of "Leninism," his work on "Marxism and the National and Colonial Question" and the essay, "On Dialectical and Historical Materialism".
12. Literature on the Soviet Union becomes the arena of so many controversies that we might naturally expect human bias to be particularly active. It might also be natural to expect that among wealthy newspaper owners, and hence, the correspondents who are encouraged,

this bias would usually, although not always, tend to be negative. Evidently this was the case in the earlier as well as the more recent history of the U.S.S.R. In 1920 Walter Lippmann and Charles Merz published "A Test of the News — An Examination of the News Reports in the 'N. Y. Times' on Aspects of the Russian Revolution with Special Importance to Americans, March, 1917, to March, 1920." Supplement to "The New Republic", August 4, 1920. This detailed study comes to the conclusion that, "In the large, the news about Russia is a case of seeing, not what was, but what men wished to see . . . On the essential questions the net effect was almost always misleading, and misleading news is worse than none at all." It need hardly be added that the direction in which the reader was misled was never one favorable to Soviet Russia.

13. This in spite of the fact that materialism can lay claim to a long and impressive philosophic ancestry, going back to the ancient "physicalistic" pre-Socratics.
14. Professor Woodbridge used to tell a story about a meeting of the American Philosophical Association where one philosopher was "accused" at some length of being a "materialist". In his reply, he said he had only two questions to ask the speaker: one, what is materialism, and two, what of it!
15. Engels: Introduction to "Socialism, Utopian and Scientific".
16. Scepticism and Animal Faith, VIII. Santayana adds that he is "apparently the only one [materialist] living". To Soviet thinkers this would probably seem a rather broad statement.
17. While these three laws were "discovered by Hegel" (Engels: "Dialectics of Nature", p. 30) who was not a scientist in any specialistic sense, they could hardly be said on that ground to be unconnected with science. What is in question is their logical content and the development of their implications in relation to the findings and the methods of science, not the psychological circumstances of their origin.
18. This close connection could appear unusual only to one who fails to bear in mind the history of logic as a part of the history of philosophy. Aristotle, for example, was quite clear and deliberate in relating his metaphysics (of essential, unmoving form as opposed to non-essential, changing content) to his theory of thought and the laws thereof. The adjective in the expression, formal logic, is not rhetorical. Cf. Aristotle's remarks in connection with the law of contradiction in his "Metaphysics" 1005b 2-34.
19. The rejection of mechanism was made in the late twenties. Beginning as a dispute within the philosophy of science, it eventually spread to all fields of thought. Associated with the mechanist tendency were figures like A. Timiriazev, Axelrod, Stepanov, Timianskii, Sarabianov and Bukharin. The leading spirit among their critics was Deborin. The mechanists represented what we would call an extreme empiricism which was suspicious of theory and ontology in general, and Hegelian dialectics in particular. Some even went so far as to urge an abandonment of "philosophy" altogether, placing reliance upon the specific sciences alone. An acquaintance with some of these tendencies, but unfortunately, not with the fact that they are outmoded, has woefully

misled some commentators. Deborin's group was itself taken to task on the ground that it went too far in the direction of idealism in criticising the lack of dialectical grasp in mechanism, and that it had particularly neglected the critically important field of social problems. Cf. in English, the Article, Soviet Philosophy, in "Dictionary of Philosophy", Philosophical Library. N. Y. 1942.

20. Would the case of the concept or moral value exhibit any basic difference from the others? It does not seem likely, although some philosophers set great store by the belief that ideas *at least* do not change. One can understand this position as held by an idealistic metaphysician who has his eyes open, but when it is advanced, as it sometimes is, by people who come forward as only specialists in the theory of logic, eschewing all connection with any ontology whatever (a peculiarly modern, and, on the whole, rather dubious phenomenon) one hardly knows what to make of it. Such people will readily admit that you and I change our "ideas", but will add that we are there using the term in only a "psychological" sense. In their view, one idea *in reality* does not grow or develop into another; the ideas suffer no sort of change whatever, *we* just change from one to another of them. To them, evidently, ideas have some sort of existence that is essentially independent of man and his psychology and all material and changing factors. Yet, of course, they have no connection with idealistic metaphysics!
21. Dialectical materialists take history very seriously, and do not "blame" Aristotle in this regard, although they "blame" people who cling to Aristotle's notions, oblivious to what has happened in the intervening two thousand three hundred years. Taking Aristotle's ontological and logical theories in their historical context, dialectical materialists consider them an immeasurably valuable step ahead, a necessary emphasis on precision, refinement, distinction after the comparative simplicity of the physicalistic dialectics of preceding thinkers. Only after the Aristotelian elaboration of metaphysical (abstract, static) identity can the concept of dialectical identity, (identity within difference, changing identity) originally advanced by the pre-Socratic thinkers, be adequately developed and enriched. Cf. Alexandrov: "Aristotel." Gosudarstvennoe Sotsialno-Ekonomicheskoe Izdatelstvo. Moscow. 1940.
22. A situation that made even Aristotle uneasy, and he did his best to lay the ghost, evidently not with complete success, however, for it still haunts the pages of philosophical periodicals to this day. Probably as long as there are formalistic logicians, new and final solutions of Zeno's paradoxes will continue to appear.
23. "Chemistry can be termed the science of the qualitative changes of bodies as a result of changed quantitative composition." Engels, Dialectics of Nature. International. N. Y. 1940. p. 30.
24. Bolshaia Sovetskaia Entsiklopedia, v. 22, p. 155.
25. Ibid.
26. and 27. Bolshaia Sovetskaia Entsiklopedia. v. 22, p. 154.
28. By Francis Bacon, for example.
29. Some writers rather naively ask, what does the theory of materialist dialectics add to the scientific method? They might as well ask, what

does the kinetic theory of heat add to heat. The answer is, of course, nothing — except a theory, an attempt to explain what is fundamentally involved in the subject under discussion.

30. Hegel was in this position, according to Marx and Engels: he saw reality was dialectical in essence, but identified it with idea.
31. To say those who put forward this view reveal a disproportionate attachment to economic things has the same significance, from a logical point of view, as saying that the proponents of the germ theory of disease show a disproportionate attachment to germs.
32. and 33. Contribution to the Critique of Political Economy. p. 12.
34. It is almost unnecessary to point out that the historical materialist is in the position, not of advocating a class struggle where none exists, but of indicating the existence of such a struggle, the abolition of which is one of his underlying aims.
35. This thesis does not imply that the motivations involved are necessarily selfish, although, of course, there is a certain amount of selfishness abroad in the world. People may be sincerely convinced that action which benefits themselves or the group to which they economically belong is socially beneficial, and they may be right. Also, the historical materialist shows no hesitation in recognizing that it is quite possible for people to champion the interests of groups to which they do not belong, or to strive for social amelioration, even when it is economically disadvantageous to them, because it is connected with justice or with ethical values like brotherly love. (Neither Marx nor Engels belonged to the proletariat by economic status; the former came from a petty bourgeois professional milieu, the latter was a manufacturer). The point of the thesis is that whatever the subjective motivations, the objective content and consequences of significant social action usually involve economic considerations and, hence, the class struggle, in a way that has decisive implications for the movement of history.
36. Marx's labor theory of value asserts that exchange value expressed by price, is determined by labor time, the average time necessary to produce the given commodity by a competent worker under normal conditions. Surplus value is the difference between the amount of value the worker produces and the amount he receives as wages. This differential is the source of private profit and exploitation. Cf. "Capital", v. I, chap. I; also, the essay, "Value, Price and Profit."
37. Marx: "Critique of the Gotha Program."
38. The view taken is that, as Lenin saw the possibility of socialism in one country in the light of economic and political developments (the later phases of imperialism, and the "uneven" evolutionary path of capitalism) which Marx and Engels, who were negative towards such a thesis, could not experience, so Stalin saw the possibility of the chief features of communism in one country, a thesis towards which Lenin was negative in the light of conditions as he knew them. Cf. Mandelshtam: "Sovety — Politicheskaia Osnova S.S.S.R." Politizdat. U.S.S.R. 1940. Uchenie Lenina-Stalina o Gosudarstve: Sbornik Materialov. Voronezh. 1940. (Especially the chapter by Trainin.) English abstracts of these books will be found in "Philosophic Abstracts" N. Y. Nos. 7, 8. Stalin: Report on the Work of the Central Committee

to the Eighteenth Congress of the C.P.S.U. (B.) 1939. III, 4: Some Questions of Theory.

39. Until a short while before the U.S.S.R. became involved in war, when the increased need of technical training caused a partial modification of the educational structure, the prevailing system in the Soviet Union provided free tuition for all higher and professional education, and, in the vast majority of cases, a stipend or salary for the student to meet his general living expenses.
40. The criticism of the official conduct of higher officials of all sorts by "rank and file" people in the press, at periodic open meetings, in wall newspapers (ubiquitous in the U.S.S.R.) and in other like ways is sharp, frank and unsparing to a degree which is hardly possible elsewhere, probably owing in large part to the fact that it is so difficult for those of higher administrative rank to invoke economic sanctions (such as loss of livelihood) against others.
41. The social history of tastes, of standards of esthetic judgment, considered in relation to the basic institutions of society and their changes, would probably prove very enlightening.
42. Photographic naturalism is criticized quite as much as empty formalism. V. International Literature. 1936. No. 6 and March, 1937, No. 3 for articles by Soviet writers criticising certain of these tendencies in Soviet art.
43. Cf. Grib, V.: Balzac. Trans. from the Russian by Samuel Bloomfield. Critics Group Series No. 5. N. Y. 1937. Lifshitz, Mikhail: The Philosophy of Art of Karl Marx. Trans. from the Russian by Ralph B. Winn. Critics Group Series. No. 7. N. Y. 1938. Lenin, V. I.: Leo Tolstoy (Five Essays) Trans. N. J. Nelson, Dialectics, No. 6. Critics Group Press. N. Y. Two of these essays appear in Lenin: Selected Works, v. XI. International. N. Y.
44. For representative essays from both sides in this controversy, see Literature and Marxism — A Controversy by Soviet Critics. Critics Group Series. N. Y.
45. It was the fashion, some generations ago (and indeed, still is, with some), to assume that the theory of organic evolution must make one lose respect for man, not gain respect for the other species.
46. Cf. Gorky's remarks, representative of the general attitude, in his essay, "On the 'Good Life' " in "Culture and the People", International. N. Y. 1939.
47. Aristotle in his "Ethics" and "Politics" not only recognizes this condition, but justifies it as being according to nature and reason. He sees in it a warrant for organizing society aristocratically, for condemning democracy.
48. For a discussion in English of some of the issues involved, v. Gorky, Maxim: Culture and the People. N. Y. International. 1939 — especially the essays, Humanism and Culture, and On Anecdotes.

SELECTED BIBLIOGRAPHY

Collected editions: The most extensive collection (not yet complete) of the works of Marx and Engels is the Marx-Engels Gesamtausgabe, publication of which was begun in Germany and continued in the U.S.S.R. in Russian (Sochineniia) as well as in German. There is a two volume Selected Works in English. Of Lenin the Collected Works in Russian (Sobranie Sochinenii) comprise more than thirty volumes, with about thirty additional volumes of miscellaneous writings (Leninskie Sborniki). The principal English translations are the Collected Works (of which six volumes in nine books have been published to date), the Selected Works, comprising twelve volumes (vol. XI, Theoretical Principles of Marxism, is especially rich in philosophical materials) and the Little Lenin Library, made up mostly of shorter pieces, comprising twenty-seven volumes to date. Following are individual works of special significance.

Marx, K.: Capital. Poverty of Philosophy. Towards the Critique of Political Economy. Value, Price and Profit. Critique of the Gotha Program.

Marx, K., and Engels, F.: German Ideology. Communist Manifesto.

Engels, F.: Anti-Dühring. Dialectics of Nature. Ludwig Feuerbach and the Outcome of Classic German Philosophy. (Contains Marx's Theses on Feuerbach.) Origin of the Family, Private Property and the State.

Lenin, V. I.: Materialism and Empirio-Criticism. State and Revolution. Filosofskie Tetradi (Philosophical Notebooks). On Leo Tolstoy (Five Essays. Dialectics. No. 6. Critics Group Press. Two of the essays also appear in Selected Works, vol. XI.) On the Significance of Militant Materialism. (In vol. VII, on Religion, of Little Lenin Library.)

Stalin, Joseph: On Dialectical and Historical Materialism, 1940. Leninism, 2 vols. Marxism and the National and Colonial Question.

Plekhanov, George: Essays in Historical Materialism.

Mitin, M.: Boevye Voprosy Materialisticheskoi Dialektiki, 1936.

Lifshitz, Mikhail: The Philosophy of Art of Karl Marx, 1938.

Literature and Marxism. A Controversy by Soviet Critics, 1938.
Rozental and Yudin (editors): Kratkii Filosofskii Slovar (Brief Philosophical Dictionary). Second edition, 1940. (Forthcoming English translation.)
Alexandrov, Bykhovskii, Mitin, Yudin and Others: Istoriia Filosofii (History of Philosophy). In seven volumes. Vol. I (1940) and Vol. II (1942) published to date.
Uchenie Lenina-Stalina o Gosudarstve: Sbornik Materialov. (Essays by various writers on the Soviet Theory of the State.) 1940.

PHILOSOPHIC NATURALISM

By Ralph B. Winn

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It is not the same thing to have a body and to comprehend its operations, or to have economic problems and to understand them. Similarly, there is a vast difference between having a philosophy and knowing it. All people form a set of beliefs and convictions, even if they be a fluctuating patchwork: this is their philosophy of life. But to understand one's own beliefs—to know oneself—and to organize them in a consistent and integrated manner, that requires hard and perseverant mental work, a lot of sound information, and a genuine love of wisdom.

The quest of truth rather than mere justification of personal convictions has characterized the history of philosophy from its earliest beginnings to the present day; and understanding has been its goal. Though thinkers, in their work, have usually claimed to be objective and opened their insights to the cognitive examination and evaluation of all men, nevertheless, it should never be forgotten that the activity of thinking must be done within one's mind. The subject and object thus become inseparable. The interpretation of problems and the problems themselves go hand in hand.

This unavoidable situation gives rise to some important questions. To what side of the cognitive process shall we give a greater weight, to the objective side or to the subjective one? Shall we be guided mainly by facts of reality or by the logic of reason?

An answer to these questions appears to be simple: by both, of course; for, in the last analysis, the logic of reason and facts of reality are quite compatible. As William James once remarked,[1] "reason deals with consistencies only, truth

with consistencies *plus* facts." Thinking can be, indeed, valid *and* true. At least, this is an implicit assumption of every serious inquiry.

Such an assumption is easy enough; its fulfillment, however, is incomparably more difficult. Facts have to be discovered in a painstaking research, and many of them remain stubbornly elusive and uncertain. Reasoning must often start with guesses, hypotheses, postulates based on insufficient evidence; even at its best, reasoning is likely to result in a scheme of ideas the correspondence of which to actual elements and processes of reality may or may not be true. Thought may be carried far away by logic, before there arises a suitable opportunity to test or correct its conclusions by evidence beyond dispute.

It is justifiable to grant that the two roads to truth, that of logic and that of fact, must eventually converge. Nevertheless, philosophy had to start by the former road. The vagaries of speculation had to precede the ascertainment of fact. In the early days of our civilization, there was a dearth of factual generalizations, and the existence of natural laws was hardly surmised at all. Whatever concepts were available, had been formed by language for the narrow purposes of everyday life. These were clearly inadequate to comprehend the broader aspects of reality. Hence, philosophic speculations had to begin with assumptions influenced by ancient mythologies and grounded in questionable interpretations. Fact and fancy were freely mixed.

It was at that time, when thoroughly established facts were scarce and rational processes sadly misunderstood, that Aristotle attacked and largely solved the latter problem. His contributions to the factual knowledge of reality were on the whole negligible, but his insights into the nature of thought and the rules of logic were so splendid that they endured, virtually unaltered and unsupplemented, for many more centuries. It was not surprising, therefore, that the logic of reason rather than facts of reality came to dominate the pursuit of knowledge from the 4th century B.C. till

approximately the 17th century A.D., and that philosophy reigned supreme during the entire period.

But with the awakening of interest in nature and especially with the accumulation of factual generalizations, which have characterized the modern ages, the situation has appreciably changed. Ockham's 'razor' (or the principle of parsimony: "entities should not be multiplied beyond necessity") was one of the earliest expressions of dissatisfaction with the reasoning unsupported by facts. Francis Bacon's vague formulation of the principles of induction may be regarded as a shaky bridge constructed between the two roads to truth. And men like Galileo, Vesalius, Harvey, Boyle, and Newton were the founders of modern science.

For a while science continued to play a subordinate role and was referred to under the name of 'natural philosophy'. But gradually, as science acquired a growing mass of material and as its findings began to be applied to life in countless ways, the relation became reversed. As the well-earned prestige of science increased, that of philosophy waned, so that finally philosophy could be referred to, as some people feel, under the name of 'speculative science'.

Exactly what is the position of philosophy today? It would be wrong to believe that more than one century of an unprecedented scientific progress has not dislodged at all philosophic thought from the attitudes prevailing in the days of Kant and Hegel. Nor would it be right to assume that this advance has undermined the foundations of philosophy to such an extent that traditional trends must be completely abandoned in favor of a wishful imitation of science. The question is certainly not one of keeping all, or preserving none, of traditional doctrines. Nevertheless, much of what has been happening within the last two or three decades indicates the dramatic appeal of the 'all or none' principle. Both nostalgia for, and divorce from, the past have been probably caused, in part at least, by a vast swing or upheaval of ideas leaving in their wake much uncertainty and confusion. The vigorous spirit of creative

reflection, which manifested itself during the ages of comparatively scanty knowledge—as in the Athens of the 5th and 4th centuries B.C. or in the Western Europe of the Enlightenment period—has not yet been regained, except in the multiplicity of small ideas and in the profusion of quibbling, bickering, and intellectual conflict in general.

As a result, philosophy has lost a great deal of reputation and influence outside the shrinking ranks of its professional and non-professional devotees. In the light of the contemporary emphasis on fact rather than on logic, metaphysical speculations appear unreliable, epistemological discussions futile, aesthetic doctrines arbitrary, ethical analyses impracticable. It is hard to deny that philosophy has failed, on the one hand, to avail itself of the splendid opportunities for revaluation and new insights, presented by the steady accumulation of factual information, and, on the other hand, to demonstrate the essential fruitfulness of rational activities.

The old philosophic spirit rooted in a non-factual study of reality may be dead. But philosophy is not. The situation reminds us of the former courtiers of France exclaiming: *"Le roi est mort. Vive le roi!"*

Old philosophy stressed logic. New philosophy can be guided by both facts and logic and thus acquire—as philosophic naturalism—a vital significance in the further development of our culture. But in that case the conditions must be removed under which, in B. Russell's words,[2] "*bad* philosophy has practical consequences, while *good* philosophy has none." Naturalism was presumably 'bad', because it stood in opposition to certain traditional presuppositions subsequently exposed by science as mere 'sacred' fancies. The scholars are now willing to dismiss everything resembling 'the singing spheres' or even 'the realm of eternal essences'. By implication, they already accept the simple thesis of philosophic naturalism, namely, that "nature, the world of reality, has a character, a structure of its own, and our opinions are true only insofar as they conform to this actual situation."[3] But a yearning for the past glory of the

'queen of the sciences' seems to prevent most thinkers from accepting the thesis explicitly, despite the fact that its acceptance alone can restore to philosophy its usefulness and prestige.

Like everything else that grows with time, philosophy must change. But it does not have to break completely with the past. In its conceptual analyses and deductions it must continue manifesting the perpetual value of clear thought; and by its dependence on established truths it may also align itself with the sciences and thus enable reason to contribute its share of service to human progress and well-being rather than to sacrifice itself on the altar of pure abstraction, erudite verbalism, technical superficiality, and sterile professionalism.

Philosophic naturalism, insofar as it is supported by facts, may be conceived as a paved highway as compared to the dirt road of ancient speculation. But it is not the only such highway. Scientific naturalism is the other major way to truth. Contemporary scholarship calls for both.

Quite apart from wayward fortunes of historical change, there has always been a deep-rooted distinction between what we now call science and philosophy. At the foundation of this distinction lies the fact that observation and thinking are two unique functions of cognition. Every normal man is endowed by nature with the organs of sight, hearing and smell. He cannot help but observe and experience. And every intelligent man is inclined not only to observe but also to do some thinking and to build his beliefs and convictions in accordance with what he regards as true.

Curiously enough, thinking is not, and cannot be, done *in terms of* sensory images or of what they refer to in the external world. The eyes, ears and nose are not particularly helpful in this regard, except indirectly. The proper organ of reasoning is the brain, and reasoning operates in terms of mental entities abstracted from nature as perceived, arrived at through generalization, combined in various ways, or else created through the spontaneous activity of imagination. These entities, in terms of which alone can reasoning

be done, are *concepts* ranging all the way from the simplest classes and attributes (such as 'dogs' or 'brown') to high abstractions (such as 'relativity' or 'infinity'). We thus see that percepts and concepts are not to be confused; and hence observation, insofar as it is dependent on percepts, is to be clearly differentiated from reasoning, insofar as it is dependent on concepts.

It is possible, of course, to think *about* things and events, simply because concepts, if properly derived, are connected with, and apply to, the external world. Reasoning would be, indeed, a futile power were it otherwise, except as a prerogative of the Aristotelian God confined within the boundaries of the 'thought of thought'. The point is, however, that human reasoning gains its fruitfulness from the ease with which it passes from percepts to concepts, and *vice versa.* In other words, observation and thinking are, or should be, closely interrelated. Observation may stimulate and direct processes of thought, and it may serve for the verification or refutation of products of reasoning; in its turn, thinking is invaluable for the correct interpretation, evaluation and integration of observed phenomena. Neither functions alone, in the absence of the other, whether it be on a very small and low scale or on a very broad and high level.

The basic distinction between science and philosophy is a direct outgrowth of these considerations. The primary concern of the scientist is the observation of phenomena; the primary concern of the philosopher is reflection dealing with the more important concepts. It is to be understood, of course, that science is no more everyday observation than philosophy is everyday thinking. In the course of ages, science has developed a method of making observation extraordinarily exact and reliable and of supplementing it with measurement, calculation, recording, experimentation, operation of special devices, and verification. Similarly, philosophy has developed a method of making the thinking keen, systematic and logically precise, according to the principles of rigorous abstraction and generalization, classification and definition, analysis and synthesis.

Needless to say, concepts are as indispensable to science as observations (that is, factual data) are to philosophy. The two pursuits of truth have never been, and can never be, absolutely independent of each other. The life of the senses and that of reason are indeed complementary, mutually fructifying. Co-operation between them is, no doubt, useful at all times; and some overlapping, deliberate or accidental, is unavoidable.

It would be strange, therefore, to begrudge the fact that scientists occasionally ponder profoundly on the data of nature, society and self and partake of philosophic activities, as when Newton, Darwin or Einstein contribute to both fields of creative research. And it would be equally strange to object to philosophers' 'encroachment' upon the field of science and to their working, in the manner of Descartes, Kant or Dewey, beyond the boundaries of reflection proper. Nevertheless, strange things do happen, and there is much jealousy and superfluous departmentalization in the scholars' ranks.

Let us bear in mind, however, that, quite apart from all the special techniques and traditions and apart from its many-sided relations and applications, science still remains essentially observation of phenomena, and philosophy still is essentially reasoning in terms of concepts. Each has its own place and function.[4]

A few words should be added by way of demonstrating the correctness of these conclusions. Has philosophy always been, indeed, the study of concepts? Its history presents largely a spectacle of shifting emphases from one phase of knowledge to another, particularly from interest in the external world to that in the internal. Perhaps, this is as it should be, for the road to truth is tortuous, winding forward among peaks each of which constitutes a serious problem. Whatever be the case, the principal source of both approaches, the empiricistic one and the rationalistic one, lay in Ancient Greece. Leukippus, Democritus and Epicurus manifested an intense interest in the phenomena of the external world and prepared the major foundations of all

later empiricism. The Pythagoreans, Eleatics and Platonists, on the other hand, stressed the significance of the intellectual world. This latter tendency passed afterward—with Neo-Platonism and Christian mysticism—into the study of transcendental and supernatural entities, while the observation of, and speculation about, nature was wellnigh forgotten.

Long and persistent as this attitude was, it came finally to an end. A slow but growing revolt against authoritarianism and spiritualism characterized the Renaissance since the days of Roger Bacon till its decisive outburst represented by the work of Galileo, Francis Bacon and Descartes. The medieval blend of Neo-Platonism and Aristotelianism was at long last cast aside, and Democritus became for a while the symbolic hero of most progressive thinkers.

Science, as we know it, grew out of this revolt, avowedly naturalistic and often materialistic, while philosophy, unable to find its place in the new order of things, proceeded to turn from one pole of experience to the other, from concepts of tangible nature to ideas of the intangible mind, explaining the wholeness of things either in terms of matter or in terms of the mind.

The 'either-or complex' is strong in human nature. The philosophers are not inclined, on the whole, to synthesize or reconcile facts of nature and ideas of the mind; no matter what they do, partisanship flourishes. As a result, it is seldom seen that there may really be no need to choose between materialism and idealism, or between empiricism and rationalism. It seldom occurs to thinking people that all philosophy can deal with directly is concepts, not phenomena. Creative reflection may, to be sure, derive concepts from facts; it may apply concepts to facts; it may influence the course of history and the character of culture. But reasoning has never been, and can never be, done in terms of images or phenomena. Unfortunately, whenever this line of argument is appreciated and followed, it is interpreted as a trump in the hands of the idealists.[5]

During the twenty-five centuries of philosophy (from Thales on), it has been definitely conceptualistic, in the

sense that it has dealt exclusively and inevitably with concepts. In pre-Socratic philosophy, the concepts of Substance, One and the Many, Being and Becoming were well in the foreground. Socrates re-directed it toward ethical notions which, after a period of systematization, were picked up again by the Epicureans and the Stoics. Plato, following up the earlier beginnings, built a magnificent system of thought around the concept of concepts (universals) and their place in the realm of rational reality. Aristotle covered the field of knowledge in a broad way, though he is remembered best for his analysis of deductive logic. Starting with Plotinus and throughout the long period ending with the Renaissance, the concepts under discussion were overwhelmingly religious, such as revelation, salvation, soul, hereafter, God. Though the scope of modern philosophy has been so extensive as to include some investigation of all these problems and of many more, nevertheless it may be said that the most important work of thinkers during the 17th and 18th centuries lay along the line of physical concepts, such as force, inertia, gravitation, space and time, light and heat, substance and matter, as well as of methodological concepts pertaining chiefly to epistemology and mathematics. The 19th century contributed, among other things, a vigorous clarification of certain biological ideas, notably of those of evolution and life. Finally, during the last fifty years or so, social concepts have been increasingly demanding our attention.

The above sketchy and utterly incomplete survey of the history of philosophy, in its broader meaning, does not intend to reveal anything new to the student of philosophy, except one important point: that philosophy, as such, has always dealt with concepts. The clarification of basic concepts was once all-important. But in our times, as a result of a powerful development of the sciences, philosophy can no longer claim to control the wholeness of knowledge. It can be asserted, however, that the field of philosophy, as distinct from that of science, comprises the study of all

vital concepts, whether they be of significance only to thinkers or also to scientists and ordinary people.

It is one of our contentions, in fact, that contemporary philosophy should not be circumscribed by traditional problems: its subject-matter is co-extensive with the entire realm of concepts, out of which it should select for special examination those which have acquired, as means or ends, a particularly great significance for people and society of our age. For philosophy is, after all, a part of life, with historical responsibilities not to be shirked or neglected.

The conceptual character of philosophy and naturalism, some people may say, do not cohere; in fact, they may add, there is an inherent contradiction in the juxtaposition of the two words and meanings. As long as we accept the Cartesian bifurcation of nature, to use A. N. Whitehead's phrase, and cultivate the habit of relegating elements of matter and of the mind into two separate and mutually exclusive compartments of study, the illusion of contradiction is likely to persist. Most of us already comprehend, however, that all knowledge is, in a sense, mental and that the distinction between observation and thinking is necessitated by the underlying structural and functional difference between the sensory organs and the organ of reflection, that is, between what can be experienced as perception and what requires an intellectual effort. Moreover, it is now generally acknowledged that concepts apply equally well to the understanding of physical phenomena and to that of mental entities. We can declare, therefore, that concepts may be classified as naturalistic and non-naturalistic.

This is precisely our point: we contend that, strictly speaking, not all concepts are naturalistic; most particularly, not all concepts are enriched by, or are compatible with, the factual information acquired during the last hundred years. Some concepts have turned out to be true and some are misleading or false (e.g. phlogiston, animal magnetism, and possibly ether); some are derived from established facts and some take origin in fancy (e.g. elves, Martians, or the time-machine) finally, some are based on knowledge,

as such, and some on faith (e.g. God, soul, or salvation).

Philosophy is a province of life, not the whole of life. It has neither the power nor the right to prescribe, outside of its own realm of problems, what concepts must be entertained and what must not. It does not forbid children to believe in Santa Claus or prevent adults from constructing castles in the air. But it has an undeniable right to delimit the province of reason from other aspects of human behavior and endeavor, such as science, religion, art, political and economic interests, folklore or day-dreaming. Such a delimitation is conducive to the clarity of thought; yet it does not signify any mutual exclusion or isolation. On the contrary, everything indicates that the recognition of the many-sided interdependence of various provinces of life is essential for a wholesome advancement of each.

Consequently, insofar as we assume that philosophy deals with problems of knowledge, we exclude all theological concepts as irrelevant to our field of study; insofar as we believe that philosophy should construct its arguments in a close agreement with established facts, we avoid fancy; and insofar as we contend that philosophy is a pursuit of truth and understanding, we are eager to expose obfuscation, falsity, superstition, and prejudice. In short, then, we designate our philosophy as *Naturalism,* because it aims to deal only with concepts that are derived from established facts, have bearing upon genuine and useful knowledge, and are developed in a rigorous use of logic.

A claim of our philosophy to these qualities is not particularly new or original. Most schools of thought assert that they, too, aim to be factual, logical and true. The three words obviously do not mean the same thing to all people; and definitions, though helpful, may not be convincing enough. All we can say is that by 'facts' we understand the facts as known to science; by 'logic' we understand the logic as it is known to philosophy; and by 'truth' we understand the agreement of both. In addition, philosophic naturalism is distinguished by the following three points.

(1) We maintain that the subject-matter of philosophy

is identical in scope with that of science; it is nothing short of entire reality, the ultimate source of all information. Whatever differences are found between the two, with regard to their material, are a question of tradition and, above all, of the respective method of investigation. For indeed, some realities cannot be observed (e.g. values), while others are comparatively disadvantageous for speculation (e.g. machines). But this much can be asserted: wherever there are significant concepts to be abstracted, analyzed, revised, synthesized—whether it be with regard to customary problems of philosophy or with regard to some of the newest findings of physics, biology, psychology, or economics—there is room for philosophers' activity.

(2) We maintain, therefore, that science and philosophy should be legitimate partners in the pursuit of truth, both equally naturalistic, the former investigating the phenomenal aspect of problems, the latter the conceptual one. As observation cannot be conducted in terms of concepts and reasoning cannot be achieved in terms of percepts, each of the two approaches to the knowledge of reality is qualified best to carry on its work by means of its own specific method. That is to say, the scientific method and the philosophic method are not to be confused and should be developed in accordance with the unique requirements and opportunities of each type of study.

(3) We maintain that contemporary philosophy has the duty to clarify and assimilate, in conceptual terms, much of what has been discovered by recent science. An emphasis on naturalism is definitely sound and timely. But we mean even more than that. We believe that philosophy can and should be as beneficial in its effects and as practical in its influence as is theoretical and practical science. The old-fashioned opinion that concepts "do not bake bread" is a misleading myth. Surely, reasoning is good for other things than stray arguments and the work of 'arm-chair philosophers'. Thought is not an idle, impracticable enterprise. Ideas are no mere cultural ornaments. Only when concepts are selected for investigation in an utter disregard of

current interests and practical implications do they lead to that 'abstract' speculation (notably, abstracted from basic demands of life) which has caused so much damage to philosophers' reputation.

Some academic philosophers may actually be surprised to hear that the study of concepts can be useful, fruitful, of practical consequence. They may even feel that 'pure' science and philosophy are noble and lofty, precisely because they hover high above all earthly considerations. But a philosophic naturalist does not feel that way at all. He concedes, of course, that some valuable contributions to knowledge have as yet no tangible applications. But he does not regard them as 'noble' on this account; rather, he regrets the fact. At the same time he asserts that the practical value of concepts and of reasoning in general is sadly underestimated.

In order to comprehend the actual role of concepts in life and history it is necessary to make a clear distinction among three kinds of concepts corresponding to the three major fields of reality (or nature in the broader sense), namely, to the physical world, the social world, and the world of the self. As far as the latter kind of concepts is concerned, we must postpone discussion till some future occasion and limit ourselves to saying that they are subjective, not in the sense of being arbitrary or individually determined, but in the sense of referring to the subject and its experiences, as such. A discussion of social concepts, however brief, cannot be quite so readily dismissed, however, the more so that it has a distinct and important bearing upon the question of the practical value of reasoning. We find it advantageous, in this connection, to point out certain characteristics of social concepts as compared or opposed to physical concepts.

That concepts of the physical world are in many respects unlike concepts of social reality can be readily understood from the study of the contemporary state of affairs in the two respective fields. The social scientist is inclined to ascribe his inability to discover universal laws in cultural phen-

omena to the unusually high complexity of his subject-matter. "It must be admitted," declare M. R. Cohen and E. Nagel[6] in the name of the historians and other social scientists, "that theories as comprehensive as those of the natural sciences, and those on the basis of which the development in time of social institutions could be predicted, have not been, and perhaps cannot be, achieved in human history. This is largely so because the subject matter of human history is more complicated, that is, it involves more factors, and therefore theories in human history cannot be formulated as precisely as in the natural sciences. They cannot be explored very easily in a deductive fashion, and consequently they are not capable of definite verification and refutation. Moreover, the complexity of the subject matter of human history is so great that comprehensive theories which are believed to be opposed to one another are in fact merely supplementary." Statements of this sort should be regarded as descriptive of the contemporary situation rather than as final and ultimate judgments. Anyway, they will do as a convenient apology for certain failures of the social scientist.

It is well to realize, at the same time, that phenomena of the physical world are characterized, contrary to current beliefs, by a similar, almost unlimited variety of constituents and relations, which must have been baffling to thinking men of the distant past. Apart from a few obvious regularities, such as the succession of days and seasons or the steady motion of stars and planets, the early man could see in nature only a spectacle of surprising irregularities and chance occurrences. Countless generations of men had to pass before a few exceptionally gifted individuals arrived at the daring idea that a closer study of nature might yield a solution of her mysteries. By patient comparison of similarities and differences and, more recently, by scientific isolation and control, man has succeeded, however, in perceiving order in nature and in describing it in terms of now familiar generalizations known as natural laws.

The peculiarity of these laws is that they do not seem

to be undergoing any change or evolution whatsoever. For all we know, they are the same laws which were at work before the eyes of the Neanderthal man and which will be at work ten thousand years hence; we believe that they apply in an identical manner to all times and places. Neither wish nor prayer, neither skill nor wisdom can alter the inexorable rules of nature. She enforces strict obedience to her eternal and immutable dictates. Dynamic as she is in her manifestations, she controls by static laws.

However, obedience to the laws of nature does not necessarily imply helplessness. Early in the growth of our civilization man began to subjugate natural processes to his will. Though slow to learn, he gradually formed an exciting dream of mastering forces of environment. The way toward the realization of this dream was sagaciously summarized by Francis Bacon's aphorism that "nature to be commanded must be obeyed." Ever since—and, to a degree, for a considerable time before—man has tried to avail himself of the very changelessness of physical laws and to put them, when sufficiently known, to his service. The application of scientific discoveries to life has become particularly marked during the last hundred years, when countless machines and devices have been invented, when nature's electricity has been sent into power-houses and along the wire, when the combine and fertilizer have revolutionized agriculture. Man has become, indeed, a half-master if not yet a complete master of his physical environment.

The experience of the social scientist, as distinct from the physical scientist, has been, true enough, quite different. All his attempts to formulate social laws comparable in permanence and universality to physical laws have been so far quite unsuccessful. And no wonder: each age, we find, has characteristics of its own and can be described only in terms of provisional generalizations rather than eternal laws, derived almost exclusively from the study of the age. This truth is well described by A. Goldenweiser's words,[7] "the material on which history and social science build is unrepeatable," not only in details but also

in general forms. There is a certain continuity, to be sure, in historical processes, which connects events of two successive periods; but this continuity is not one of a uniform development. Consequently, strained analogies attempting to throw a uniform light upon history are often more misleading than clarifying, as can be seen, for instance, from an examination of Oswald Spengler's erudite treatises. When one period comes to an end, its laws (if we are to use the word) are changed, broken, abandoned, and new laws come to take the vacant place. There is, indeed, no uniformity of social nature.

Some authors assert that "the only laws that are involved in progress are the laws of nature."[8] If this remark means that social events are natural rather than un-natural or supernatural, what scientist or philosopher would disagree? If, on the other hand, the statement implies that there is no basic distinction between physical and social laws, we must emphatically object. For the two kinds of laws—and, consequently, the two kinds of concepts—have more important distinctions than similarities.

The first of these distinctions has already been referred to, namely, that social laws, contrary to physical laws, are not permanent. There are no fixed patterns of government or industry, for instance, says R. G. Tugwell;[9] they are, in reality, "inescapably dynamic, mutable; the design follows the event. There is, I know, a stubborn legal fiction of permanence. We have in the field of political economy a similar fiction and a similar tendency to justify all that happens by appeal to precedent. The need of mortal man to attach his destiny to safely holy documents seems difficult to amend."

The second distinction is that, whereas no physical law can be altered by man's efforts, social laws are largely man-made. We would not go so far as to maintain, with Karl Pearson, that "it is man who makes his own environment, and not environment that makes the man;" but we do assert that man can at least contribute, as he undoubtedly does, to the formation of his environment and to the creation

of social concepts and laws following from his modified mode of existence. It is evident, for example, that 'the iron law of wages' or 'suffrage' did not spring up from inanimate nature. It follows that, in a long run of history, social nature to be commanded does not have to be unconditionally obeyed: man is the maker of social reality, insofar as it is compatible with physical reality and with the particular stage of his cultural development. Man can't choose laws of physical nature, but he can, within limits, choose laws of society; his legislation is confined to public rather than cosmic affairs.

The third and the most important distinction, seldom mentioned in scientific and philosophic literature, is that, whereas we can only *derive* concepts connected with physical laws from the study of nature, we may *impose* social concepts on the life of citizens and on history. Physical nature is as it were prior to human concepts, unless they be fancy, fiction or error. But society is often moved by concepts, in which case the concepts are truly prior to cultural reality. The progress of the physical sciences depends on the continuous accumulation, organization and interpretation of factual information. But the dynamism of social research has man for its source, especially his ideas and emotions. W. G. Sumner was quite right in asserting[10] that "institutions and laws are produced out of mores. An institution consists of a concept and a structure."

This latter distinction between physical and social laws (and corresponding concepts) is quite likely to be challenged. As we regard it as the most significant distinction of all, having serious bearing upon the method of social research in general, we must not let it pass lightly; we must point out some of the salient facts bearing witness to its truth.

What is democracy, for instance? Is it a natural phenomenon that has come to us like a stray comet or like an island slowly rising from the sea? Or is it primarily an idea suggested for the first time by the Greeks and adapted more recently to social conditions favorable to its acceptance

and cultivation? It is undoubtedly an idea, we maintain, a concept developed by certain persons and groups, accepted by certain nations, and incorporated in certain institutions.

What is money? Tangible as it now is, it is primarily a concept created many centuries ago for the purpose of effective economic exchange and gradually modified, in accordance with additional ideas, to meet changing conditions and opportunities of a more advanced society, until today it has come to dominate, for better or for worse, practically every phase of human existence. Clearly, without ideas money would have never acquired its present form and role.

What are moral commandments? What are various creeds and religions? What is our educational system? What is marriage? They all have, basically, an undercurrent of ideas on which cultural reality has been, and is being, constructed. Some ancient notions still retain public favor; others are obsolescent; still others are gone and buried. A few modern ideas had a spectacular rise and fall; others have been slowly but steadily incorporated in our institutional practices or even in things like skyscrapers or radio; still others are as yet merely germinating. There is nothing eternal and immutable about social concepts. Each belongs to one or more countries; each courts public favor and bids for acceptance or retention.

It is obvious, of course, that of all the ideas occurring to human beings only exceptional ones have a chance of being incorporated in social reality. Some ideas are doomed in advance to fail in their bid for public attention and recognition, because they are foolish, fantastic, impracticable; some, because they are naively or unhappily worded; some, because they are stated in an obscure language; some, because they are insufficiently elaborated; some, because they do not take human psychology into consideration; some, because they proceed from a source commanding little or no prestige; some, because they are premature or tardy; some, for other reasons too numerous to list.

We should not assume, however, that, to become widely

and strongly influential, a social concept must be true, good or useful. In his partial power to direct his own destiny, man blunders not infrequently; nor does he show much discrimination in giving credence or preference to particular ideas. In fact, some of the most vigorous and persisting ideas actually operating in our society and molding its institutional life are false, evil and harmful. Was the notion of duelling, for example, useful? Is the idea of Nordic supremacy true? It the concept of anti-semitism good?

What, then, determines the choice of ideas in social practice? The chief qualification for the spread and application of concepts is that they have a sufficiently strong appeal to individuals and groups capable of affecting the course of history. They must have an appeal to emotion rather than to reason; they must promise (not necessarily give) satisfaction to human needs or desires. The stronger and wider the appeal, the greater is the resulting force. Ideas are indeed forces, and occasionally weapons, controlling human destiny. Invariably, they are connected with people's motivation which, in its turn, is determined by economic, political and social conditions.

We said that concepts, to become active in society, must have "a sufficiently strong appeal." What does it mean? Even a superficial acquaintance with history shows that people's desire for a change of conditions is not always proportional to their need of the change. Men are capable of enduring an amazing amount of suffering, poverty and oppression without attempting to do anything about it. Consider the conditions prevailing until recently in India and China; or recall the long period of the Dark Ages. In the days of social stability, human desires follow a shallow stereotype, lying well within the groove of mental habits and traditions. But give people an exciting idea to ignite their imagination, to grip their heart, to invade their mind—and history becomes plastic, unpredictable.

Before a collective desire for a social change—for a comparatively insignificant reform or for a sweeping revolution —becomes clear and focused as it were, the stability of the

pre-existing institutional arrangements must be disturbed, shaken. The underlying idea or ideas must become obsolescent, untenable, annoying in application. But even this is not enough. A suitable alternative must be visualized to fan man's emotions. A new concept must be found to establish a glaring contrast between what is and what might be and to weaken the vetoes of public opinion. The two conditions, the obsolescence of old ideas and the emergence of new ideas, characterize all historical crises.

As most ideas attacking the shaky foundations of society have to uproot these foundations, such ideas invariably generate counter-forces. There are always people who find conservative notions—no matter how obsolete—advantageous or comforting, even if only because they are cozily familiar. Hence the difference among human desires, especially during the days of a social crisis, becomes conspicuous, sharp, dramatic. Only at such times does it become quite obvious that the history of mankind is, in A. J. Todd's words,[11] "a ceaseless struggle between invention and convention."

This struggle between invention and convention is not new, and history has not become merely of late a battlefield of ideas. Concepts have played an important role in determining the course of man's destiny from the very beginning of human society. 'Divine rights of kings' and 'the sovereignty of the people', 'absolutism' and 'laissez-faire', 'the abolition of slavery' and 'freedom of speech,' 'imperialism' and 'class war' are merely a few random illustrations of the concretized concepts at work among the nations.

In the perspective of history, the social process is not unlike the biologist's natural selection, with this difference, however: that, whereas in natural selection the struggle is mainly of brawn against brawn, with individuals and whole species perishing or surviving in the end, in social selection[12] the struggle is among competing concepts. And the battlefield of contemporary ideas is, of course, neither brains nor nature in the raw, but civilized life, with speeches and books, sciences and arts, schools and armies, courts of law and

propaganda, all playing their specific and changing roles. It is as if countless men aroused by emerging ideas were asking themselves: "Do we wish to live according to the old idea or according to the new idea?"—and making their free or forced choice in thought and action.

The implications of the above broad analysis stand now clear. The business of the social scientist and philosopher is not only to study phenomena, in their most objective sense, but also to probe the concepts underlying them. The days when the historian employed exclusively 'the obituary method' of recording past events are definitely gone; and the sociologist, economist or psychologist can no longer be satisfied with minute descriptions of how things happen around him. More and more, he recognizes the imperative need of taking a thoughtful attitude toward social phenomena, of finding ideas behind events, and of integrating his analyses.

The peculiarity of social studies consists, we may notice, in a certain, almost inevitable, circularity. In the continuity of history, ideas generate events and events generate ideas. As every scholar belongs to a milieu dominated by a set of ideas operating right in his own head and heart, his observations, criticisms and analyses may easily be affected by the fallacy of *petitio principii,* in its most subtle and disguised forms. As G. H. Sabine puts it, "social studies are themselves items in the history of the very societies they study. An economic theory is a normal part of an economy; political theory is itself a product of, or factor in, politics; an awareness of and concern with history is an invariable part of every social process that has a history. Hence there is a kind of circularity in social studies. For what appears at any given time and place to be probable, or reasonable, or valid as explanation depends on the prevailing 'climate of opinion', and this itself has come to prevail in the course of a social history and as a consequence of whatever forces have brought that society to its present form."[13]

The social scientist and philosopher must concede that ideas, as social forces, do not function solely as mental

processes or as propositions contained in books. In being applied, they start working right in the midst of the life of ordinary citizens and institutions. It is difficult to comprehend, for instance, the story of the American Revolution, unless we take into consideration, in addition to chronological events, the dominant concepts of the period —for example, that of liberty—and the popular desire to realize them. It is difficult to comprehend also the dynamic history of our own day, unless we familiarize ourselves with some of the germinating concepts of today.[14]

The social scientist and philosopher should not feel disheartened by the realization that the old hope of finding eternal laws of social phenomena must be given up. Contrary to what E. P. Cheyney[15] and others seem to have believed, such laws are not the only condition for prevision of coming events. If properly formulated, generalizations applicable to a single period, our own for instance, will suffice to elucidate or foresee events in their various connections. A study of events, when coupled with an examination of underlying concepts, is likely indeed to result in most practical and valuable findings.

We thus see that the social scholar does not have to confine himself to a mere tabulation and identification of facts which will never happen again. The evidence he accumulates may have but a local and temporary character. The scope of his work may be historically limited, but it is close to life. Having assimilated the truth that ideas are forces, that they are commonly embodied in social practices, he may become a guide to a more enlightened life and to a brighter future. And it is quite probable that such efforts on his part will prove to be fruitful, for men are more susceptible to ideas than they are willing to acknowledge. We take it to be a self-evident truth, in this connection, that every individual, every group, every nation, and humanity as a whole, despite all their suspicions and hatreds, antagonisms and intolerances, intrigues and blunders, quarrels and wars, desire essentially but one thing: a happier and more abundant life for themselves and, if possible, for all.

Each sound idea compatible with this vital goal is a potential social reality.

The preceding paragraph attempts no more than to show the functional connection between concepts and nature, both physical and social. And we find, indeed, that concepts are mental only in the sense that they originate and develop in human consciousness. But they have also an important and undeniable relation to the non-mental world in that they draw understanding from reality and apply it to cause action and to mold human lives. It is this relation, as a condition of the fruitfulness of philosophy, that holds the attention of the philosophic naturalist.

The eternal truth of physical laws calls, to be sure, for an understanding based on faithful obedience. The resulting concepts tend to be formed according to pre-existing patterns of nature. The task of philosophy, in this field, is to progress from less adequate to more adequate concepts; it demands that the thinker draw from scientific sources the data necessary to assure reason that the concepts he deals with are in strict agreement with available facts. The division of labor in such co-operative research activities becomes obvious: whereas science provides us with all the factual clues and takes care of all the factual verification as well as of the tangible application of the findings (as in invention or in the discovery of new chemical processes), philosophy must concentrate its efforts on significant inferences and rational insights, analyze concepts and integrate them on the assumption that the external world is as consistent in its operations as reason is logical in its deductions. The philosopher must be particularly wary not to permit habits and inertia of thought to conceal from his mental vision the growing inadequacy of traditional concepts; he must be ever ready to revise, to redefine, to redirect the contents of his conceptual domain, in accordance with the progressively enlarged factual evidence.

The changing and flexible forms of social reality, on the other hand, reverse the situation: instead of obedience they call for an intelligent initiative. We cannot suggest to nature

any modification of her laws; but we can and should mold the ways of human organization and enterprise. A large share of responsibility for the formation of institutions conducive to human wisdom, health, prosperity, and happiness rests, we daresay, with philosophy; for concepts launched by keen thinkers have the power of influencing social progress. Here we find such levers of culture as ideas of democracy, freedom and tolerance. They have been shaped, not in accordance with the eternal laws of the universe, but in accordance with the rational will of man aspiring to become master of his earthly home and of his historical destiny. And it is possible, no doubt, increasingly to realize this long-range ambition, provided man takes steadily into consideration the unalterable character of the ways of physical nature.

All of us realize that reason is capable, in co-operation with the physical sciences, of attaining a growing measure of the understanding of nature. All of us will realize some day, much more clearly than nowadays, that reason is capable, in co-operation with the social sciences, of obtaining a growing measure of influence in society. Reason—and hence philosophy—has not yet shown its full stature; it has not yet uttered its last and mightiest word. The wise men of the past, the lovers of wisdom, are bound to come back, practical as ever, interested as ever in the whole scope of human affairs, logical as Aristotle and his worthy successors permit them to be, and much enriched by the factual information gathered in the course of ages by scientific naturalists.

1. *Thoughts and Character of William James*, II, 559.
2. "Philosophy in the Twentieth Century," *The Dial*, Oct., 1924. Italics are mine.
3. J. B. Pratt, *Naturalism*, 3-4.
4. See my "Philosophy and Science," *Philosophy of Science*, Jan. 1942.
5. See my "Is Nature Rational?", *Philosophy of Science*, July, 1939.
6. *An Introduction to Logic and Scientific Method*, 342-343.
7. "Nature and Tasks of the Social Sciences," *J. of Social Philosophy*, Oct., 1936.
8. J. O. Hertzler, *Social Progress*, 76.
9. In the *New York Times Magazine*, July 16, 1933.
10. *Folkways*, 53.

11. *Theories of Social Progress,* 336.
12. I use the term in a somewhat different sense from that discussed by R. M. MacIver in his *Society, Its Structure and Changes,* 457f.
13. "Logic and Social Studies," *Philosophical Review,* March, 1939.
14. See my "Ideas Must Serve Humanity," *The Humanist,* Summer, 1942.
15. "Law in History," *American Historical Review,* 1924.

BIBLIOGRAPHY

Broad, C. D.: *Scientific Thought,* 1923
Cohen, M. R.: *Reason and Nature,* 1931
Lewis, C. I.: *Mind and the World Order,* 1929
Montague, W. P.: *The Ways of Things,* 1940
Pratt, J. B.: *Naturalism,* 1939
Russell, Bertrand: *Philosophy,* 1927
Sellars, R. W.: *Evolutionary Naturalism,* 1922
Sellars, R. W.: *The Philosophy of Physical Realism,* 1932
Swabey, W. C.: *Being and Being Known,* 1937
Winn, R. B.: "Is Nature Rational?", *Philosophy of Science,* July, 1939
Winn, R. B.: "The Nature of Causation," *Philosophy of Science,* April, 1940
Winn, R. B.: "The Nature of Relations," *Philosophical Review,* Jan., 1941
Winn, R. B.: "Philosophy and Science," *Philosophy of Science,* Jan., 1942
Winn, R. B.: "Ideas Must Serve Humanity," *The Humanist,* Summer, 1942
Woodbridge, F. J. E.: *Nature and Mind,* 1937
Zilsel, Edgar: In *The Development of Rationalism and Empiricism,* Int. Encycl. of Unified Science, II, No. 8, 1941

PHILOSOPHIES OF CHINA

By Wing-tsit Chan

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Living philosophies in China are varied and conflicting, consisting of the new as well as the old, the Western as well as the indigenous, and the extreme as well as the moderate, each fighting for supremacy. Generally speaking, the struggle is that between Confucianism and Western philosophy. Just as the rise of Neo-Confucianism in the eleventh century terminated the traditional rivalry among Confucianism, Buddhism, and Taoism, so the introduction of Western philosophy ended the domination of Neo-Confucianism which had remained unchallenged for almost a thousand years.[1] The field is now the battleground of a general struggle which roughly involves (1) the recent attempt of Confucianism to readjust itself, (2) the attack from the West, (3) the revival of Buddhism, and (4) the emergence of the New Confucian Rational Philosophy.

1. *The Confucian Revolt*

Even during the millennium of its monopoly, Neo-Confucianism was by no means free from struggle. The struggle was from within. There was first the reaction of Idealism against Rationalism, then the rebellion of Empiricism in the eighteenth and nineteenth centuries, and finally came the Confucian revolt of our own era.

Confucius (551-479 B.C.) taught a social and political philosophy aiming at the "investigation of things," the "extension of knowledge," the "sincerity of the will," the "rectification of the heart," the "cultivation of the personal life," the "regulation of the family life," "national order," and "world peace."[2] This program was to be carried out through the realization of *jen,* which means benevolence, love, good-

ness, or true manhood.[3] From the eleventh century on, however, the Neo-Confucianists transformed this socio-political philosophy into a subjective and speculative metaphysics, reading into it Taoist naturalism and Buddhist intuitionism. The world was conceived to be the evolution of the Great Ultimate which moves and generates the passive and active universal principles which in turn give rise to the material universe with all its multiplicity. Underlying this manifold is the Reason, the universal principle of being which combines the universe into One, while the vital force, which gives things their material form, differentiates the One into the Many. In the Rational Philosophy of Ch'eng-Chu (the Ch'eng brothers[4] and Chu Hsi, 1130-1200), the "investigation of things" of Confucius was interpreted to be the "investigation of Reason to the utmost," and *jen* became the Taoist and Buddhist doctrine of absolute equality and impartiality. "The man of *jen,*" they said, "regards the universe and all things as a unity." For the investigation of Reason and the practice of *jen,* they advocated the psychological states of "sincerity" and "seriousness."[5]

But sincerity was no longer the sincerity taught by Confucius, and seriousness was radically different from the Confucian "rectification of the heart." They lost the practical character and assumed religious significance, becoming surprisingly similar to the Buddhist "meditation and insight." Gradually the Ch'eng-Chu movement became an inward movement, the mind assuming more and more importance.[6]

In the idealism of Lu-Wang (Lu Hsiang-shan, 1139-1192, and Wang Yang-ming, 1473-1529), the mind became identified with Reason, of which it is the embodiment. Since the mind is the embodiment of Reason, it follows that if one would truly comprehend truth, he must "fully exercise his mind," and do so by "tranquil repose," in which alone the original goodness of the mind is restored. "When the mind is clear as the result of tranquil repose, it will naturally know what is true and what is good . . . This is the intuitive knowledge of the good, and is not attained through external investigation." Intuitive knowledge implies "intuitive ability"

to do good, as knowledge and conduct form a unity. When the good is realized, the man of *jen* becomes an "all-pervading unity — one substance — with Heaven and Earth and things."[7]

In an idealistic philosophy such as this, the degree of subjective speculation is extreme. Its terminology was Confucian, but its spirit was Buddhist; it was "Confucian externally but Buddhist internally," it was really "Buddhism in Confucian disguise." Nowhere else in Chinese history has Confucianism become so scholastic.

It was against this scholasticism that the Neo-Confucianists of the Ch'ing dynasty (1644-1911) revolted. They refused to accept the speculative metaphysics of either the Rational Philosophy of Ch'eng-Chu or the Mind Philosophy of Lu-Wang. They rejected the Taoist metaphysics and the Buddhist psychology hidden in their Neo-Confucianism. They demanded a return from the subjective to the objective, from the abstract to the concrete, from the remote to the immediate, from the universal to the particular, from the speculation about the Great Ultimate to the discussion of daily events, and from the authority of Chu Hsi and Wang Yang-Ming to the Confucianists of the T'ang and the Han dynasties. It was truly a Confucian Renaissance, bearing striking similarities to the Renaissance of the West. There were in China, as there were in Europe, reexamination of classical philosophies, emancipation from scholasticism, the rediscovery of society and the individual, the rise of independent and critical thinking, and the development of the scientific method.[8]

There were many scholars in this movement, each making his special contribution, but we may take Tai Tung-yuan (1723-1777) as representative. The Neo-Confucianists of the Reason and the Mind Schools had contrasted Reason and the Vital Force, considering the former above corporeality, pure, refined, and universal, and the latter corporeal, mixed, crude, and particular. Tai Tung-yuan vigorously opposed this bifurcation of reality. He believed that "The distinction of what is corporeal and what is above

corporeality refers to the operation of the Vital Force . . . What is corporeal is that which has taken a definite shape, and what is above corporeality is that which has not taken a definite shape . . . Thus corporeality means the transfiguration of things and not the Vital Force."[9] To the earlier Neo-Confucianists, Reason is the Moral Law (*tao*) which is above the Vital Force.[10] To Tai Tung-yuan, on the other hand, the Moral Law means nothing but the operation of the Vital Force. There is no distinction, then, between Reason and the Moral Law on the one hand, and the Vital Force on the other. Both Reason and the Vital Force are the Moral Law.

Furthermore, both Chu Hsi and Wang Yang-ming held that good action proceeds from Reason, whereas evil action proceeds from desire, thus sharply contrasting Reason and desire. Tai was diametrically opposed to this contention. He considered desire to be just as natural as Reason, because "Men and creatures all have desires, and desires are the functions of their nature."[11] Desire refers to a thing, whereas Reason refers to its principle. "A thing is an event. In speaking of an event, we cannot go beyond daily matters such as drinking and eating."[12] Thus it is precisely in such daily matters that Reason can be discovered. The spirit of this philosophy is the central emphasis of all Ch'ing scholars, namely, "practical application." Philosophy must be dedicated to actual living. The result of this philosophy is the substitution of the theory of immanence for that of transcendence and the subordination of the abstract and universal to the concrete and particular. It is a secular philosophy instead of a speculative metaphysics. The original, practical, and humanistic position of Confucianism was restored.

In spite of this remarkable advance, however, there was still need to go further. The "practical application" must be carried to its logical conclusion, to the realm of society and government. The man who attempted to do this was K'ang Yu-wei (1858-1927), the last of the great Confucianists, the concluding note of the Confucian Renaissance.

K'ang went straight back to Confucius himself, rejecting

not only the interpretations of Chu and Wang, but also those of the T'ang and the Han dynasties. A young radical as he was, he severely condemned the texts of the entire Christian era as unauthentic. He boldly declared that Confucius was not a conformer, but a reformer who attempted to "transform social and political systems on the pretext of ancient examples." Confucius, according to him, conceived history as an evolution through the "Three Periods," the Period of Disorder, the Period of the Well-to-do State, and the Period of the Great Commonwealth.[13] "In the teaching of Confucius," he said, "there are the Three Periods . . . When *jen* prevails, the period becomes that of the Great Commonwealth. When righteousness prevails, the period becomes that of the Well-to-do State."[14] The Period of Disorder is characterized by nationalism, capitalism, and individualism. In the Period of the Well-to-do State, these still exist but are subordinated to internationalism and socialism. When the Great Commonwealth is established, unity and harmony will reign in society and government.

The prerequisite for the establishment of the Great Commonwealth is the removal of the "six kinds of suffering" which give rise to the "nine distinctions." "My way of salvation from suffering," he said, "consists in the elimination of the nine distinctions . . . of nations . . . classes . . . races . . . sexes . . . human relationships . . . the rich and the poor . . . injustice and selfishness . . . natural species . . . and any condition that results in suffering."[15] This means internationalism, socialism, communism, absolute equality for all, independence for the individual, love towards all, and general order and peace.

This is obviously a combination of Western Utopia and Buddhist Paradise, radical as it was in 1884. K'ang, however, attributed this doctrine to Confucius. He pointed to a discourse where the sage said this in recalling the Golden Age: "When the great Way prevailed, the world became a common state. Rulers were elected according to their virtue and ability, and good faith and peace were restored . . . The old people were able to enjoy their old age, the adults

to employ their talent, the young people to respect their elders, and the widows, orphans, and cripples to have support. The men had their respective occupations and the women had their homes . . . This was the Period of the Great Commonwealth."[16]

Regardless of whether this passage is authentic and whether K'ang's interpretation is correct, his effort to focus Confucianism on its socio-political philosophy is significant. For this he provided a metaphysical basis in the Confucian concept of *jen*. "The Way of the Great Commonwealth," he declared, "is perfect equality, perfect justice, and perfect love (*jen*)."[17] In the world of suffering, *jen* expresses itself in what Mencius called the "unbearing mind,"[18] that is, the mind that cannot bear to see the suffering of the world. It is not a subjective state, but is objectively real, comparable to ether, the basis of all existence.[19]

K'ang did not elaborate on this doctrine, however. That was done by T'an Ssu-t'ung (1865-1898), his young follower and comrade, to whom the first principle of *jen* is "universal application," in the sense that it is all-pervasive and all-penetrating, just as ether, electricity, and spirit are all-pervasive. When *jen* is realized, there will be "fourfold unity," the unity of all states, classes, sexes, and the ego and its other. Furthermore, *jen* is the origin of Heaven and Earth and the myriad things, the source of spirit and intelligence. It is eternal and one, by virtue of which all distinctions and inequalities are unreal and should be eliminated.[20]

This interpretation of *jen* is nearer to Chu Hsi and Wang Yang-ming than to Confucius. But in general K'ang and T'an were true to the spirit of the Confucian Renaissance. They reaffirmed the central socio-political position of Confucianism. They reestablished the authority of Confucius. They brought the philosophy of the secular, the particular, and the concrete into closer contact with life. They actually attempted to put the Confucian social and political philosophy into practice.

In trying to carry out the "practical application" of Con-

fucianism, K'ang realized that the world was not yet ready for the realization of *jen* and the Great Commonwealth; it was ready only for the Well-to-do State, in which China could be, and should be, a modern state among the family of nations. He was convinced that the Western nations were approaching this state because they had wealth and power and because they had a religion. Consequently he advocated political reform and the promotion of the "Confucian teaching" to be the "Confucian religion." To this end he secretly planned with the emperor for a comprehensive and radical reform of the government, in opposition to those in power. Had this famous "Hundred Days Reform" in 1898 been successful, it would have altered the course of Chinese history. But it failed utterly, resulting in the emperor's virtual imprisonment, T'an's execution, and K'ang's flight abroad. During his years of exile, his devotion to Confucius and the emperor grew deeper and deeper, and he became the staunch promoter of constitutional monarchism and the "Confucian religion." Later, he even participated in the abortive restoration of 1917. He was no longer K'ang the radical, but K'ang the reactionary. In the face of growing belief in republicanism and science, his movement was exceedingly unpopular. His failure came to be interpreted as the inability of Confucianism to cope with modern situations, and his conservatism was taken to mean the inability of Confucianism to advance with the world. For the solution of her problems, China turned to the West. Thus the Confucian Renaissance came to an end, and Confucianism had to struggle for its existence in the face of a strong attack from Western philosophy.

2. *Western Philosophy*

China's introduction of modern Western philosophy began in 1897 with the translation of Huxley's *Evolution and Ethics*,[21] which was rapidly followed by the translation of the works of Mill, Spencer, Darwin, and Montesquieu. At the turn of the century, Schopenhauer, Kant, Nietzsche, Rous-

seau, Lamarck, Tolstoi, and Kropotkin made their appearance in China. The movement soon gained momentum. Following the New Renaissance of 1917, many books were translated. Dewey was invited to lecture in 1919 and 1920, Russell in the latter year, and Driesch two years later. Special numbers of learned journals were devoted to Nietzsche and Bergson. In another decade, important works of Bacon, Descartes, Spinoza, Berkeley, Hume, James, Bergson, Eucken, Russell, and Dewey were available in Chinese. Almost every trend of Western thought had its exponent in China a few of which have developed into schools.

a. *Pragmatism* — The first of these is pragmatism, the first Western philosophy to have become a concerted movement in China. It was the guiding philosophy of the New Renaissance started by Dewey's pupil, Hu Shih. Its philosophy of ideas as instruments to cope with actual situations and its emphasis on results had special appeal to reformers. Hu's article entitled "Pragmatism" in 1919 exerted a great deal of influence.[22] When books and lectures by Dewey became available, the following of pragmatism grew considerably. The movement reached its zenith around 1924. Since then, however, there have been few writers on the subject. The pragmatists, including Hu Shih, have been devoting themselves to education, social reconstruction, and political reform. Nevertheless, the influence of both Dewey and Hu Shih is still appreciable, particularly among educators and writers on social problems. Only a few years ago, a second version of Dewey's *Reconstruction in Philosophy* appeared. Although the more important works of James and Dewey still await translation, there is no doubt that the educated class in China have a clearer idea of pragmatism than of any other Western philosophy.[23]

Since Hu Shih is the central figure of this movement, a brief survey of his philosophy will reflect the spirit of the school. He said that he learned from Huxley how to doubt and from Dewey how we think. The result is a naturalistic conception of life and the universe and the belief in social immortality in the place of the Chinese traditional

"three immortalities of virtue, of service, and of wise speech." Needless to say, he faithfully follows Dewey in the conviction that truth is an instrument, changing with the circumstances, and that natural laws are hypotheses tenable only until someone formulates a new satisfactory hypothesis. He advocated "more investigation of problems and less talk about theories." The literary revolution in which he freed Chinese thought from the classical style and created a new literature of the spoken language, is, he said, the "practical application of evolutionism and pragmatism." He rejects the idea that Oriental civilization is more spiritual than Western civilization. On the contrary, the opposite is the case, since the invention of the automobile, for example, is very much an activity of the spirit.[24]

Hu Shih's writings have been extensive and varied. He is at once an authority in philosophy, literature, Buddhism, and ancient history. His chief contribution in philosophy is his *Outline of the History of Chinese Philosophy,* (1918) which covers the ancient period. It is the Chinese version of his *The Development of the Logical Method in Ancient China* written the year before. As a pioneering work, it contains many bold theories, some of which, such as the logical system of Confucius and the evolutionism of Chuang Tzu, are untenable. But others, like the discovery of the Mohist scientific method and the Neo-Mohist logic (which no one before him could understand), are permanent contributions. Its publication practically revolutionized the approach to Chinese philosophy, giving it an entirely new complexion. He accomplished this, first, by "investigating the evolution of Chinese philosophy," secondly, by "discovering the causes of this evolution," and thirdly, by "critical study." There is no doubt that he saw more pragmatism in ancient Chinese philosophy than there really was; he wrote the book with an axe to grind. As a general history, it is being replaced by later ones which have benefited by its methods and discoveries. But as a monument of creative and revolutionary thought, its importance will increase with the years.

Being the philosophy of China's social and intellectual

revolution, pragmatism has been critical towards all indigenous Chinese philosophies, especially Confucianism which it singled out for vicious attack. It could have found certain sympathetic notes in Confucianism. Both systems are thoroughly humanistic and practical. Both emphasize social values. Both regard knowledge primarily as power. Both are interested in specific problems instead of *a priori* principles. Confucius said, "Obtain wide and extensive knowledge; critically inquire into it; carefully ponder over it; clearly sift it; and earnestly carry it out."[25] These words might have come from Dewey. But Confucianism as pragmatism found it was decadent, generally regarded as the very symbol of China's poverty and weakness. In the eyes of the pragmatists, it was incompatible with the modern world. They therefore demanded its total rejection, an attitude they have not altered even to this day. In the early twenties, pragmatism almost dealt Confucianism a fatal blow. This work of active hostility, however, has passed on to the materialists.

b. *Materialism* — As pragmatism was the driving force of intellectual and literary reform, materialism has become to some extent the moving power of economic reconstruction. However, like pragmatism, materialism is working for a completely new society, involving revolution in every phase of life. There are two trends, critical naturalism and dialectic materialism, the former reaching its peak around 1920 and the latter a decade later. When the materialistic tendency was under way, a series of articles on Haeckel's monism of substance gave it added impetus.[26] It was reenforced by the translation of his *Riddle of the Universe, The Wonders of Life,* and *History of Creation,* and later by Mach's *Analysis of Sensations,* and Poincaré's *Science and Hypothesis.* Ch'en Tu-hsiu, co-founder of the New Renaissance, was one of the outstanding advocates of this philosophy. Later he joined the Communist Party and promoted dialectic materialism.

Drawing from both German and Russian sources, the dialectic materialists have propounded most vigorously a materialistic metaphysics, a dialectic epistemology, and a

materialistic interpretation of history. They principally follow Karl Marx whose introduction to China dates back to 1919 when an article on his philosophy was published.[27] At present members of this group are, with few exceptions, communists. They not only base their doctrines on Marx and Engels, but follow closely Lenin, Bukharin, and Plekhanov, many of whose works have been translated into Chinese. In their numerous periodicals, they interpreted the dialectical method of Hegel, Fichte, Kant, and Lenin in the same light. For a time, in the late twenties, the materialistic interpretation of history became a fashion, and even opponents of communism rode with the tide. So many books were printed to promote these two lines of thought—materialism and the materialistic interpretation of history—that special sections were devoted to them in book catalogues as late as 1935.

This has been an influential movement, particularly among China's youth. It is still potent today. Furthermore, it is a mass movement, represented not by a few outstanding scholars but by a mass of writers. However, the number of its publications, mostly propaganda, is not at all proportional to the number of its intellectual converts. Needless to say, this school aims to overthrow all traditional philosophies, especially Confucianism, which it holds to be the foundation of Chinese feudalism. To the materialists, Confucianism, feudalism, and backwardness are synonymous.

c. *Neo-Realism* — At the same time when Marxism was introduced, a group of young intellectuals systematically advocated Neo-Realism.[28] After Russell's lectures in 1920, the movement reached new heights. In the two decades that followed, a large number of professors preached its doctrine. Articles on the subject have been numerous and are increasing. But it is represented by younger men whose beliefs and convictions are still in the process of evolution. They lack the crusading spirit of the intellectual and economic reformers. In their diversity of opinion, they are worse than the realists in the West. Furthermore, although such works as Russell's *Introduction to Mathematical Philosophy* and

The Problems of Philosophy, and Montague's *The Ways of Knowing* are available in Chinese, other important works still await translation. The Neo-Realist movement, therefore, needs outstanding writers and standard works on which it may be focused.

The Neo-Realists of China follow closely those in both England and America, although most of them attended only American universities. Fung Yu-lan, one of the earlier leaders of the school, has become a New Confucian Rationalist. His shift suggests no rejection of the philosophy, but is a natural growth. The belief that Nature has objective reality is a basic tenet of Neo-Confucian thought.

d. *Vitalism* — The three foregoing schools have little in common, but they all uphold the efficacy of science. Science was considered to be not only the solution of China's immediate social and economic problems, but of all problems of life in general. Gradually the belief in science became a dogma, reducing existence to physico-chemical phenomena and condemning metaphysics as futile speculation. It was natural that reaction arose from many directions, from the idealists, from the followers of Eucken, from those of Bergson and Driesch.[29] The last group vigorously and systematically defended metaphysics against science, and "life" against mechanical laws, precipitating a long controversy over "life and science" in 1923 which involved almost all leading scholars, including Hu Shih, Ch'en Tu-hsiu, Liang Ch'i-ch'ao, and Chang Tung-sun.

The leader of vitalism is Prof. Chang Chu-mai, faithful follower of Driesch and central figure of the controversy. From the articles of the episode now collected in three volumes, it is obvious that the basic difference between the vitalists and the scientists did not concern the usefulness of science, but the extent of its validity. The vitalists insisted that life has the five qualities of subjectivity, intuitiveness, synthetic power, free will, and personal unity, none of which is characteristic of science.[30] They placed Bergson's *élan vital* and Driesch's entelechy over and above science which, based on the theory of necessary laws, presented only a

closed universe. They defended free will, creative intelligence, purpose, and personality. They concluded that the scientific laws of cause and effect are applicable only to matter and not to the spirit, that the various branches of science need to be synthesized by metaphysics, and that solution of the problem of free will can only be found in transcendental science. [31]

The controversy did a great deal to restore the balance of Chinese thought and accelerated the growth of idealism. As a movement, vitalism is not widespread today. Driesch is not so prominent in China as he was before. Bergson, however, is still very influential. As a matter of fact, among all Western philosophers, he enjoys the longest standing in China and the best representation in translations which include his *Creative Evolution, Matter and Memory, Mind-Energy, Time and Free Will, Introduction to Metaphysics,* and *Laughter.*

e. *New Idealism* — The center of this school is Prof. Chang Tung-sun, whose purely professional interest in philosophy, whose persistent effort and voluminous writing in the last twenty years, whose serious and independent thinking, and whose ability to attract a number of followers, have made him one of the few outstanding creative philosophers of contemporary China.[32] Prof. Chang calls his own system "Revised Kantianism," which is summed up in an article entitled "The Pluralistic Theory of Knowledge Re-stated," 1937. This represents a systematization of his views previously expressed. While he "accepts Kant in general," he rejects Kant's bifurcation of reality into the manifold and unity and the division of the nature of knowledge into the given and the innate. He starts with cognition as a "basic fact," comprising intuitive synthesis, conceptual synthesis, and idea not as three stages, but as component parts. He believes that in cognition there is no need of a self which is transcendent and has no reality. There is only "subjectivity," which is in the language of Stace "later construction." In place of Kant's categories, Chang proposes "postulates" which he said are identical with Schiller's "methodological assump-

tions." Following C. I. Lewis, he asserts that these are products of society and culture. They are not entirely *a priori,* since they are within the realm of experience. There are, however, three postulates that are *a priori.* The first is the "basic law of logic," that is, the laws of thought. The second includes space and time as forms, which are the *a priori* in intuition. In cognition there is always the "this" and the "what." The "this" is the particular while the "what" is the universal, and the universal is impossible without duplication in space or time. The third is the subject-object relation in cognition, which is a given fact.

Sensation is neither mental nor physical, but "the non-existent," an illusion, an appearance. An analysis of sense-content shows that the external thing is but what the realists call a "construction," which bears certain "formal similarities" with sensation. Even other minds can be explained in this way. This "construction" is not an entity, but "the correlated." The nature of this structure is the "natural order," which is not entirely independent of the mind but a "factor" of cognition, and which has the three intrinsic qualities of atomicity, continuity, and change. Because of the common nature of mind, the universal conditions of space and time, and social intercourse, there is the common mind, and therefore the common world. Thus in cognition there are four worlds, the world of substructure, the world of sense or shadow, the world of constructions, and the world of interpretations which includes science, philosophy, esthetics, ethics, and religion. These worlds are overlapping, constituting multiple factors of knowledge.[33]

Prof. Chang admits that his epistemology is a synthesis of various Western theories, "following Kant in his main tendencies." He claims, however, that his position is a new one, whether in China or in the West. Not all his followers accept his theory in totality, nor can he be said to represent all idealists. But he is the only one in this school to have formulated a well-thought-out system. In doing so, he has raised New Idealism to a position of dignity and respect.

Besides these five systems, philosophers like Eucken,

Whitehead, Schiller, Morgan, Hocking, Perry, and G. E. Moore have their own following.[34] Although the tendencies of these Chinese philosophers are varied, and often confused and obscure, they all agree that Western philosophy is the philosophy of the future, in contradistinction to Confucianism, which most of them regard as the philosophy of the past. To a great extent, the spread of Western philosophy in China is accomplished at the expense of Confucianism. It has put Confucianism on the defensive.

3. *The Revival of Buddhism*

While this struggle between Western philosophy and Confucianism is going on, Buddhism attempts to find a place for itself by reviving a medieval scholastic philosophy. This revival is significant in that Buddhism is the only school in China that looks to the past. No such effort is made in Taoism or in any other philosophy, as we shall presently see.

a. *Taoism* — As a philosophy, Taoism ceased to exist a thousand years ago. Today it is embodied in the primitive and corrupt religion bearing its name, in the naturalistic metaphysics of Neo-Confucianism, in the principles of "rhythmic vitality" and Nature in Chinese art, and in the Chinese ideals of simplicity, inner peace, and "the preservation of the essence of life." It is true that in recent years there has been a great deal of interest in this naturalistic system, but the interest lies chiefly in textual criticism and in such historical questions as the date of Lao Tzu, which has become the subject of a lively controversy in the last fifteen years.

The earliest account of Lao Tzu is contained in the *Shih Chi* (Historical Records) by Ssu-ma Ch'ien (145-86 B. C.). Following part of this account, tradition has dated Lao Tzu at c.570 B. C. A scholar of the eighteenth century, however, on the strength of another part of the account, argued that Lao Tzu lived two hundred years later.[35] Recently this theory has been revived and accepted by many scholars, Chinese and Western, each modifying it in his own way.[36]

Almost every scholar has something to say on this question, and to many people it seems to be settled in favor of the later date. But as Hu Shih has pointed out, there is not sufficient historical evidence to support this contention, and arguments based on form and style of Lao Tzu's *Tao-te Ching* and the evolution of thought are inconclusive.[37] In this he radically differs from Fung Yu-lan, thus crystallizing the disagreement between the two outstanding authorities. The wide acceptance of the later date is due largely to the modern Chinese taste for novelty. Either the earlier or the later date can be established on the basis of the ancient account.

In this connection, it is interesting to note Hu Shih's novel theory about the historical position of Lao Tzu. Chinese historians have always described Confucius and his followers as *ju* and Lao Tzu as an opponent of *ju*. Hu overthrows this interpretation and, supported by many literary and historical evidences, contends that both Confucius and Lao Tzu were *ju*. He interprets *ju* not necessarily as Confucian, but as literati of the priest-teacher type who bore the torch of civilization in ancient China. According to him, LaoTzu was a "*ju* of the meek" who adhered to the dying culture of a conquered people and advocated the philosophy of non-resistance and contentment, whereas Confucius was a "*ju* of the strong" who advocated a positive philosophy of life in an attempt to build up the growing culture of Chou.[38] This theory, if established, will revolutionize the Chinese concept of Lao Tzu and uphold his traditional date.

This and similar questions have kept Taoism alive in academic circles. But these scholars, mostly critics of Taoism, have no intention of reviving its philosophy.

b. *Mohism*—In a certain sense Mohism may be said to have been revived. After the Mohist school disappeared in the third century B. C., its philosophy was largely ignored for twelve hundred years. At the turn of the century, Liang Ch'i-ch'ao (1873-1929), pupil of K'ang Yu-wei and foremost scholar who eventually became a leading figure in the New Renaissance, revived it. He offered the utilitarianism of

Mo Tzu (between 500 and 396 B. C.) as the salvation of China, and compared the Mohist teaching of selecting good men as rulers to the social contract of Rousseau. In 1921 he again advocated the Mohist doctrines of economy, "promotion of welfare and removal of evil," "benefits," especially wealth and population, through peace and production, and democracy.[39] This practical philosophy of Mo Tzu, his scientific method which involves the "three tests" of "basis, examination, and application," his doctrine of "Universal Love," and the subtle logic of the Neo-Mohists of the third century B. C., had definite attraction for the modern Chinese. But this interest did not crystallize into any Mohist movement. Liang's purpose lay in advocating every line of thought that would contribute to the modernization of China, and not in reviving any particular school of the past.

c. *Buddhism* — The only conscious and persistent effort to revive the past is the effort of Buddhism. Since the decline of the Buddhist philosophical schools ten centuries ago, only the religious sects have survived. There has always been interest in its philosophy, of course, but that was maintained by Confucianists who were critical of it, although two outstanding Confucian scholars were converted to it. Like Taoism, it has not produced a single writer, book, or theory of real philosophical significance in a thousand years.

The first attempt to revive the philosophy in recent times was made in 1880 when lost texts were brought back from Japan by a profound scholar, Yang Wen-hui (1853-1911). Although this Buddhist layman aimed at a general revival of Buddhist philosophy and eventually circulated more than a million stitched volumes of Buddhist literature, his chief effort was directed to the regeneration of the Hua-yen philosophy.[40] The Hua-yen School, which flourished in China in the sixth century, was essentially a Chinese product, although certain sources can be traced to India. It started with the theory of "causation by mere ideation," developed the theory of "Universal Causation of Dharma-dhatu," or the Universal Causation of the Realm of the Law, and cul-

minated in the totalistic philosophy of One-in-all and All-in-one. It originated the "Ten Profound Propositions" to the effect that all elements of existence (dharmas) are perfect and real, that they reflect one another, and that all of them are at the same time simple and complex, one and many, exoteric and esoteric, pure and varied, etc., so that the universe is a "grand harmony without any obstacle." For four decades Yang maintained a center in Nanking. With his death, however, his followers scattered. Small institutes have been organized and dissolved, and occasional treatises published. But in general the movement has subsided.

There was also an effort, about 1918, to bring Buddhist Mysticism back from Japan. This system exists in China primarily as a mystical religion.[41] In philosophy it treats the universe as the spiritual body, or the Body of Law, of the Buddha, which manifests itself as the "Realm of Diamond Elements, that is, the world of principle, and the "Realm of Matrix Repository," that is, the world of entities. These two phases, however, are but different manifestations of the same Buddha. Along with this philosophy, there is an elaborate and complicated system of magic and esoteric practice. Even mysticism in its pure form has little attraction for the Chinese intellectuals, let alone a system of mysteries with charms and magic verses. It was no wonder, therefore, that nothing has come out of the visits of Japanese priests to China or the Chinese mission of students to Japan.

One hears a great deal about Ch'an (Zen, Meditation School) today. Ch'an is essentially a method of "direct intuition into the heart to find Buddha-nature," and as such is not a philosophy. In China interest in it is purely historical, with the most important contributions coming from its critics like Liang Ch'i-ch'ao and Hu Shih.

The chief effort to revive Buddhism does not lie in these schools. Rather, it lies in the Mere-Ideation School.[42] The basic tenet of this school is that consciousness alone is real. It divides consciousness into eight categories, namely, the five senses, the sense-center consciousness which forms conceptions, the thought-center or self-conscious mind which

wills and reasons on a self-centered basis, and the Alaya or ideation-store consciousness where the energy to produce manifestations, called "seeds," is stored. This last consciousness is ever in the state of instantaneous change, perpetually influenced or "perfumed" by the incoming perceptions and cognitions from external manifestations. At the same time it endows perceptions and cognitions with the energy of the seeds which in turn produce manifestations. These three elements—seed, manifestation, and perfuming—keep on evolving and influencing one another, acting at the same time as cause and effect. Thus, all dharmas are but manifestations of consciousness, which alone is real. The world, the self, and all dharmas are instantaneously issued from the Alaya consciousness and restored to it at once, thereby constituting our life of ignorance and illusion. Due to our ignorance we accept the reality of "things of false existence" or things of purely imaginary nature, as when we are mistaking a rope for a snake, and also the reality of "things of merely temporary existence" or things of dependent nature, that is, depending on others, such as the rope depending on many causes and factors. Only with perfect wisdom can we realize the reality of "true existence," the reality of ultimate nature, which is Thusness, the true noumenon and the true nature of dharma transcending all specific characters and conditions.

We need not go into the details of this system. Its psychological analysis is thorough-going and its arguments for idealism are strong.[43] But it enjoyed only a short life in China because its extreme idealism was too one-sided for the moderate temper of the Chinese. Then why is it revived today? The answer lies, first, in the fact that great enthusiasm was aroused by the reappearance of important Mere-Ideation texts which had been lost since the ninth century and which Yang brought back from Japan; second, its subtle psychology has a certain fascination for the Buddhists; third, the spread of idealism in the West raised the hope of Buddhist idealism in China; and finally, prominent Confucianists in the last three centuries have exhibited an

interest in this Mere-Ideation Theory.[44]

The revival of this philosophy is chiefly the result of the work of two distinguished scholars, Ou-yang Ching-wu, a layman, founder and director of the former Institute of the Inner Learning in Nanking, and Abbot T'ai-hsu, until recently the director of the Buddhist Institute in Wuch'ang.[45] The former, a more profound scholar, concerned himself mainly with the investigation and elucidation of the Doctrine through teaching, whereas the latter has been active in writing, lecturing, and religious reform. The two differ not so much in their interpretation of the basic texts as in their attitude towards the question of Thusness. Ou-yang and his followers attacked *The Awakening of Faith,*[46] which teaches that Thusness, the ultimate nature of all dharmas, manifests itself according to causes, either pure or tainted. They refused to admit that Thusness is affected by the process of "perfuming," and that this Ultimate Nature has distinct characteristics. They insisted that Thusness is the noumenon, the nature, whereas the world as manifestation is the realm of characteristics.

T'ai-hsu, on the other hand, accepts no parallel between the nature and the characteristics of dharmas. He refers to a basic doctrine of the Mere-Ideation School, the theory of the "three object-domains." The first of these is the "object-domain of nature" or immediate perception, that is, the object which has its original substance and presents itself as it is. The five sense-consciousnesses and the eighth consciousness perceive an object in this way. The second is the "object-domain of mere shadow" or illusion, having no real existence and appearing only from the imagination of the sixth consciousness. The third is the "object domain of the original substance." The object has original substance and yet is not perceived as it is, because in the seventh consciousness it is seen from the subjective point of view. It is due to this "perfuming" in consciousness that nature is discriminated, giving rise to specific characters. But the original substance itself is also manifested out of ideation, not entirely free from "perfuming," and because of this

it is a characteristic in a certain sense. T'ai-hsu therefore maintains that there should be no opposition between the nature of dharmas and their characteristics.[47]

Ou-yang and T'ai-hsu revived two different traditions of the Mere-Ideation Philosophy, but they have added nothing new. Although the latter calls his doctrine the "New Mere-Ideation Theory," there is no indication in his works that he has departed from the past, except in re-grouping the component parts of consciousness and giving them new names.[48] An attempt has been made, however, to reconstruct Mere-Ideation philosophy by Ou-yang's pupil, Hsiung Shih-li, whom the Chinese regard as the most promising. He conceives the universe as a process of "constant transformation" in which there is no distinction of consciousness-domain and object-domain, matter and mind, the Many and the One. This process is incessant Change involving "intension" and "extension." Intension is the characteristic movement of the material elements, whereas extension that of the mental elements. But neither the material elements nor the mental elements have any self-nature. Only Constant Transformation is real. As such it is the Function, which is self-existent and self-sufficient, or the Vital Energy, or Life, or simply the "great current of production and reproduction in this universe," and can only be intuited by the mind.[49] Obviously this "New Mere-Ideation" philosophy is Buddhist scholasticism in terms of Bergson, Hua-yen totalism, and the Confucian philosophy of Change.

The movement is weak and limited, attracting only a small group of Buddhists. The main difficulty of the movement is that it is today, as it was over a thousand years ago, fundamentally an Indian scholastic philosophy transplanted to Chinese soil. There is no indication that the China of today provides better soil for it than the China of old. Modern China is definitely not in the mood for a second Indianization of Chinese thought. China's choice is not between Confucianism and Buddhism. The option lies between Confucianism and Western philosophy or both.

4. *The New Confucian Rationalism*

Because of the onslaught of Western philosophy, Confucianism has lost practically all its influence in education and a great deal in society. As an ethical dogma and social force, the rapid decline of Confucianism has been spectacular. But this does not mean the total rejection of its philosophy. Sun Yat-sen, in no way Confucian, was influenced by Wang Yang-ming in his theory that it is "easy to act but difficult to know." The Nationalist Party, the ruling party of China, which has no special sympathy for Confucianism, has for its ethical goal the eight Confucian ideals, namely, loyalty, filial piety, benevolence, love, fidelity, righteousness, harmony, and peace. The present New Life Movement, sponsored by the Party and the Government, chooses for its ethical objectives the Confucian "four binding principles for the country," that is, *li,* propriety or regulated attitude, *i,* righteousness or right conduct, *lien,* honesty or clear discrimination and *ch'ih,* integrity or self-consciousness. These facts are living testimonies that Confucianism has not succumbed before Western philosophy. Ever since its impact with Western philosophy, Confucianism has been reexamined, readjusted, and reconstructed.

Significantly this work has not been done by the Confucianists themselves but by others. Of these, we shall mention only the two most outstanding, a Mere-Ideationist and a Neo-Realist who have turned Confucian.

The first is Liang Sou-ming, whose lectures in 1921 stirred the Chinese as violently as Hu Shih did with his publications. Liang's lectures were published in the same year in book form, called *The Civilization and Philosophy of the East and the West,* a celebrated book even today.[50] In these lectures Liang rejected Buddhism in favor of Confucianism at the time when everyone else regarded the latter as decadent, outmoded, and doomed. After carefully examining both Indian and Western philosophies, he boldly declared that Confucianism was "the only way China should follow." He did not oppose the adoption of Western civilization; in fact he urged it. But he insisted that Confucianism,

in its philosophy of Change as "production and reproduction," in its doctrine of Reason as a universal principle of existence, and in its theory of incessant transformation resulting from the constant operation of the universal active and passive forces, offered the most suitable philosophy for China in a modern dynamic world. The intuition of this fact of universal production and unceasing creation, he said, is *jen,* which is "the way by which a man is to be a man," as Mencius put it. To comprehend the dynamic universe and the principle of *jen,* Liang said that we can rely neither on sensation nor on intellect but only on "intuitive knowledge." In this he followed closely the Neo-Confucianism of Lu-Wang. Instead of accepting Wang Yang-ming's "tranquil repose," however, he advocated *jen* as a dynamic philosophy of life. Recalling that Confucius said that "The firm and strong and resolute . . . are near *jên,*" he demanded a philosophy of action.[51] Eventually he dedicated himself to action, resigned from teaching and is now devoting himself to rural reconstruction work. His few followers scattered and the New Lu-Wang School faded out of the academic world.

The second is Prof. Fung Yu-lan, renowned author of the standard *History of Chinese Philosophy,*[52] whose views were systematically presented in 1939 in a volume called *The New Rational Philosophy.*[53] He says that he "continues," but does not "follow," the Rational Philosophy of the Ch'eng-Chu School (p.1) and reconstructs it from the viewpoint of Objectivism (p.45). To him as to the Sung Neo-Confucianists, especially the Ch'eng brothers and Chu Hsi, Reason (*Li*) is that by which a thing is what it is (pp. 42, 47). As such it is self-existent, eternal, and not affected by its objectification in the world of actual entities. It belongs to the Realm of Truth and not to the Realm of Actuality. It is neither in nor above the world, since it does not enter into spatial or temporal relationship. Consequently the question whether Reason is prior to actuality is meaningless (pp. 52-56). Although Reason is not *in* the world, every event, condition, or relation in the world

must follow Reason. The sum-total of the Reason of all entities is the Great Ultimate (pp. 54-56).

Contrary to the opinion of Chou Tun-i (1017-1073) and other Sung Neo-Confucianists, Fung holds that Reason and the Great Ultimate do not create. The Realm of Actuality is self-existent, although individual entities in this Realm must have a beginning and an end (p. 84). According to the Neo-Confucianists, entities come into being by virtue of a material principle, called the Vital Principle (*ch'i*). Analyzing this concept in greater detail, Fung explains that in coming into being, an entity is not only "modelled after" Reason but also "based on" the Vital Principle. The latter is the "material" on the basis of which an entity becomes actual in accordance with Reason. In a relative sense, *ch'i* is the "what" of an entity, such as the brick of a house, but in the absolute sense, it is Matter, a logical concept, which Fung proposes to call the Vital Principle of the True Prime Unit, using a term of Ch'eng I-ch'uan in a new sense (pp. 64, 66, 73). Although this Vital Principle, being the principle of actualization, has the characteristic of existence, yet it is neither in Reason nor in the actual world. In this he departs from Neo-Confucianists like Chang Heng-ch'u (1021-1077), and to a great extent Ch'eng I-ch'uan, who considered *ch'i* to be *in* the actual world (p. 68).

In actualizing, the Vital Principle of necessity follows the Reason of activity, and by implication, that of passivity. These two Primary Modes, called *yin* and *yang,* are neither subtle matters, as some Neo-Confucianists believed them to be, nor some energy that can influence the world, as their predecessors believed, but merely logical concepts (pp. 58-88). They have meaning only with reference to particular entities, and cannot be regarded as self-existent universals. Furthermore, activity and passivity are relative, as activity to one entity is at the same time passivity to another. Both of them are indispensable to existence, since every entity has its constructive elements, which are its activity, and destructive elements, which are its passivity. As every entity consists of many elements and follows many principles of

Reason, and as these are shared by other entities, the activity and passivity of an entity are, therefore, at the same time those of other entities. By virtue of this, there is internal relation between entities (pp. 89-91).

This means that every entity is internally related to *many* other entities but not to *all* other entities, as no entity follows all principles of Reason. When Chu Hsi declared that "Every person and everything has a Great Ultimate," he merely meant that each entity has the "sum-total of all the principles of Reason." Even here Chu Hsi went too far in assuming that "the human mind embodies all the principles of Reason," which is not the case (pp. 58-60). It is impossible for an entity to follow all principles of Reason because its destructive elements and passivity are always present to prevent it. There is, therefore, nothing perfect. By the same token, there is nothing permanent (pp. 93-94).

Due to the two modes of activity and passivity, an entity is forever in a state of flux and the world is, therefore, a stream of transformation. As the Neo-Confucianists put it, the universe is "daily renewed." In somewhat Buddhist fashion, Fung calls this process "formation, development, decay, and destruction," and describes it in terms of "daily renewal by cyclical process . . . by progression towards and retrogression from Reason . . . by the increase and decrease in the actualization of entities . . . and by the appearance of new classes." The last process is dialectic, resulting in new and higher qualities (pp. 94-95, 110-113, 117-120).

This whole movement of perpetual transformation involves the Vital Principle, all the principles of Reason, activity and passivity, and actualization. In its dynamic state, it is the Tao of the Taoists, or Creation; in its static state, it is the Universe or the Whole (pp. 69, 79, 100). In this continuous flow of Tao, Reason is gradually actualized. Since Reason involves an infinite number of principles, its complete realization requires infinite time (pp. 121-122). The world as we know it is, therefore, only a part of that process, in which individual entities are becoming actual.

When an entity becomes actual in accordance with Reason, its Nature can then be said to be realized and its Destiny fulfilled. From the viewpoint of the Realm of Truth, the Nature of an entity as such is neither good nor evil, but from the viewpoint of the Realm of Actuality, it is good, since it always follows Reason to some degree. Evil is merely the privation of the good. From the practical standpoint, however, when an entity fails to follow a higher principle of Reason, it becomes evil. The origin of moral evil, then, is to be explained in terms of "the failure to develop one's capacity," as in the Neo-Confucianists and Mencius. When an entity follows Reason completely, both its Reason and its Nature are fully realized. In this respect, Fung completely agrees with the Ch'eng brothers and Chu Hsi that "the complete realization of Reason, the development of one's Nature to the utmost, and the establishment of one's Destiny are simultaneous." (pp. 125-137).

In order to accomplish these, one needs to "investigate things" and to "extend knowledge." To the Ch'eng brothers and Chu Hsi, these meant speculation. Chu Hsi believed that the mind was the embodiment of all the principles of Reason and, therefore, could know the whole of Reason by knowing a part of it. To Fung, on the other hand, the contents of Reason can be known only by objective and systematic study. He, therefore, insists on the inductive method and experimental logic (pp. 49, 224). By analyzing actual entities one may know the Realm of Actuality, and from this one may know the Realm of Truth (pp. 295-299). When one understands Reason perfectly, then he "views things from the standpoint of Heaven," considers "the myriad things as one unity," lives according to *jên,* love or the highest good, and moves in a transcendental world (pp. 299-304).

This outline is too brief to do Prof. Fung justice, but it is sufficient to show that while he employs the same terminology and arrives at similar conclusions as the Sung Neo-Confucianists, he has supplied new arguments, has cleared up certain confusions, and has removed certain difficulties. More significantly he has avoided the Buddhistic mysticism

in the Ch'eng brothers and Chu Hsi. Furthermore, he has provided a logical foundation for the system which Sung Neo-Confucianism sadly lacked, and has supplemented it with a modern epistemology. In addition, he has reaffirmed the objective character of existence from the standpoint of Western Objectivism. Above all, his philosophy is a synthesis, not only of the Sung philosophers but also of Neo-Confucianism, Neo-Realism, and, to a small degree, Experimentalism. Of course, certain points, such as how a transcendental Reason and an experimental logic can be reconciled, must be clarified. Although Prof. Fung is justified in criticizing the Ch'ing philosophers as illogical in contending that Reason was *in* things and in claiming that there could be no Reason without them (p. 77), he evidently has undermined their philosophy of immanence and with it their practical and this-worldly spirit. Nevertheless, the system is a solid proof that Confucianism is not only a living philosophy but also a growing one, and that out of the conflict between Confucianism and Western philosophy harmony may ensue after all.

1. The term Neo-Confucianism is usually used to designate the Confucian movement throughout the Sung (960-1279), Ming (1368-1644), and Ch'ing (1644-1911) dynasties. It is not a direct translation of any Chinese term. In Chinese the movement is generally called "Li Hsueh," meaning the Rational Philosophy. Actually it consists of three successive movements, the Rational Philosophy of the Sung, the Mind Philosophy of the Ming, and the Empirical School of the Ch'ing.
2. *The Great Learning,* Ch. I.
3. The *Analects,* XX, 1; XVII, 22; III, 3; XV, 32; XIV, 30; VIII, 2; I, 12; IX, 10; *The Golden Mean,* XX. This most important Confucian concept is beyond English translation. For its many interpretations, see my article "Jen" in *The Dictionary of Philosophy,* ed. by D. D. Runes, 1942, p. 153.
4. Ch'eng I-ch'uan, 1033-1077, and Ch'eng Ming-tao, 1032-1086.
5. For a fuller treatment of the Rational Philosophy of Neo-Confucianism, see section 8a of my chapter, "The Story of Chinese Philsophy," in *Philosophy, East and West,* ed. by C. A. Moore, now in press.
6. See J. P. Bruce, *The Philosophy of Human Nature, by Chu Hsi* and *Chu Hsi and His Masters.*
7. *The Philosophy of Wang Yang-ming,* tr. by F. G. Henke, pp. 50, 94, 210, 60, 53, 184.
8. For a brief survey of this Renaissance, see Hu Shih, *The Chinese Renaissance,* Chicago, 1934, Ch. IV.

9. *Commentary on The Works of Mencius* (in Chinese), Pt. II, No. 17. See P. C. Hsu, *Ethical Realism in Neo-Confucian Thought,* pp. 93-102, 181-127.
10. Both the Taoists and the Confucianists use the term "tao," but with radically different meanings. To the Taoists, Tao is the "Way" of Nature. To the Confucianists, it is the Moral Principle or Moral Order.
11. *On the Discussion of Human Nature in Appendix I of The Book of Changes* (in Chinese).
12. *Commentary,* Pt. I, No. 10.
13. *The Book of the Great Commonwealth* (in Chinese), 1884, not published until 1915, Introduction. He took as authority the *Kung Yang Commentary* (c. 450 B.C.) of Confucius' *Spring and Autumn Annal.* See Tseng Yu-hao, *Modern Chinese Legal and Political Philosophy,* Commercial Press, Shanghai, 1930, pp. 39-64.
14. *Commentary of Ch. IX of The Book of Propriety* (in Chinese). K'ang also referred to the *Analects* (*Commentary on the Analects,* II, 23) and the *Golden Mean* (*Commentary on the Golden Mean,* Ch. XXIX).
15. *The Book of the Great Commonwealth,* Pt. I, Ch. VI.
16. *The Book of Propriety,* Ch. IX.
17. *The Book of the Great Commonwealth,* Introduction.
18. *The Works of Mencius,* Bk. II, Pt. I, Ch. VI.
19. *The Book of the Great Commonwealth,* Introduction.
20. *The Philosophy of Jen* (in Chinese), 1896, Introduction.
21. By Yen Fu (1853-1921), celebrated translator and first and systematic introducer of Western philosophy.
22. *The Youth* (in Chinese), Vol. VI, 1919, No. 4, pp. 342-358.
23. Works by James, translated, include: *Pragmatism, Talks to Students on Some of Life's Ideals, Psychology,* and *Introduction to Philosophy.* Chinese version of works by Dewey includes: *Reconstruction in Philosophy, How We Think, Democracy and Education.*
24. See his chapter in *Living Philosophies,* Simon and Schuster, 1931, pp. 255, 259, 261-262; also his *Recent Essays* (in Chinese), First Series, Commercial Press, 1935, pp. 630, 632, 636, 641. Consult also L. Forster, *The New Culture in China,* Ch. XIX, and K. Saunders, *Whither Asia,* Ch. II.
25. *The Golden Mean,* Ch. XX.
26. *The Youth,* Vol. II, 1916.
27. Li Ta-chao, "My Views on Marxism," *The Youth,* Vol. VI, No. 5, pp. 521-537 and No. 6, pp. 612-624.
28. In the periodical *Young China* (in Chinese), 1919.
29. His *Problem of Individuality* has been translated into Chinese.
30. Chang Chun-mai, *Controversy over Life-View* (in Chinese), 3 vols., T'ai-tung Publishing Co., Shanghai, 1923, Vol. I, pp. 1-13.
31. *Ibid.,* p. 17.
32. Major works of Prof. Chang are: *Epistemology, Moral Philosophy, Essays on Modern Philosophy,* all in Chinese, published by the Commercial Press.
33. See the article in *Essays in Honor of Mr. Chang Chu-sheng's Seventieth Birthday* (in Chinese), ed. by Hu Shih, *et. al.,* Commercial Press, 1937, pp. 95-137.

34. Few of their works are translated, however. These include Eucken's *The Meaning and Value of Life* and Hocking's *Types of Philosophy.*
35. Wang Chung, 1744-1794.
36. Including Liang Ch'i-ch'ao, Ku Chieh-kang, Ch'ien Mu, Fung Yu-lan (*The History of Chinese Philosophy,* 1930, Bodde's tr., p. 170 ff.), Arthur Waley (*The Way and its Power,* 1934, pp. 101-108), Homer H. Dubs "The Date and Circumstances of the Philosopher Lao-dz," (*Journal of the American Oriental Society,* Vol. LXI, No. 4, Dec., 1941, pp. 215-221).
37. Hu Shih, in his article, "A Criticism of Some Recent Methods Used in Dating Lao Tzu," 1933, (tr. in *Harvard Journal of Asiatic Studies,* Vol. II, Nos. 3 and 4, Dec., 1937) criticizes them as not having offered sufficient evidence to justify themselves. In reply in 1934, Prof. Fung, in his *Supplement to the History of Chinese Philosophy* (in Chinese), pp. 115-124, does not seem to present a very strong defense.
38. "On *ju,*" 1934, now included in *Recent Essays,* pp. 1-102.
39. *An Investigation of the Mohist Doctrine, Mohism and its Development,* and *A Textual Commentary of the Six Books of Neo-Mohism,* all published by the Commercial Press in Chinese. The only work of Liang's translated into English is his *History of Chinese Political Thought,* tr. by L. T. Ch'en, Harcourt Brace, 1930. For Liang's political thought, see Tseng Yu-hao, *Modern Chinese Legal and Political Philosophy,* pp. 113-133.
40. This school is called Avatansaka in Sanskrit, Hua-yen in Chinese, and Kegon in Japanese, all meaning Wreath.
41. Various names of the Mystical School are: Mantra, Mi-tsung (Mystery School), Chen-yen and Shingon, both meaning True Word.
42. Founded by Asanga (c.410-500 A.D.) and his brother Vasubandhu (c.420-500 A.D.) in India, developed in China by Hsuan-tsang (596-644 A.D.) and his pupil K'uei-chi (632-682 A.D.); called Vijnaptimatrata and Vijnanavada in Sanskrit, Fa-hsiang (Dharma-character) and Wei-shih (Ideation-Only) in Chinese, Hosso in Japanese, and Idealism, Mere-Ideation, or Representation-Only in English. For source material see Vasubandhu, *Wei Shih Er Shih Lun, the Treatise in Twenty Stanzas on Representation-only,* tr. by C. H. Hamilton, American Oriental Society, New Haven, 1938; S. Lévi, *Matériaux pour l'étude du système vijnaptimatra,* Librairie Ancienne Honore Champion, Paris, 1932; *Vijnaptimatrata-siddhi, La siddhi de Hiuen-Tsang,* tr. by La Vallée Poussin, 2 vols., Guethner, Paris, 1928 and 1929. For critical studies, see Keith, *Buddhist Philosophy,* Ch. XIV; Thomas, *History of Buddhist Thought,* Ch. XVIII.
43. See *La siddhi de Hiuen Tsang,* Ch. VII.
44. To mention two outstanding ones, Wang Ch'uan-shan, 1619-1693, and Chang Ping-lin, 1868-1936.
45. Chief works by Ou-yang: *Talks on the Mere-Ideation Doctrine, Lectures on the Mere-Ideation Philosophy,* Institute of the Inner Learning, Nanking. The chief treatises of T'ai-hsU have been collected in *The Mere-Ideation Philosophy of the Dharma-Character School,* 2 vols., Commercial Press, 1938. All in Chinese.

46. Eng. tr. by Timothey Richard and Yang Wen-hwui: *The Awakening of Faith in the Mahayana Doctrine,* 1894; and by D. T. Suzuki: *Asvoghosha's Discourses on the Awakening of Faith in the Mahayana,* Chicago, 1900.
47. T'ai-hsu, *op. cit.,* Vol. I, p. 3.
48. *Ibid.,* pp. 62-73.
49. Hsiung Shih-li, *An Essay on the New Mere-Ideation Philosophy,* pp. 26, 54, 31, 36-39, 41, 1, 72.
50. In Chinese, Commercial Press, 1927.
51. Pp. 121, 127, 171, 211.
52. Commercial Press, Pt. I, 1930; Pt. II, 1933.
53. Commercial Press, 312 pp. Chapter headings are: Reason and the Great Ultimate, The Vital Principle (*ch'i*) and the Two Modes, The Way (*tao*) and the Way of Heaven, The Nature and the Mind, Morality and the Way of Man, Tendencies and History, Truth, Art, Past and Future Existences, and The Sage.

BIBLIOGRAPHICAL NOTES

A complete history of Chinese philosophy in English is yet to be written! There are a few in German, including Alfred Forke's *Geschichte der alten chinesischen Philosophie, Geschichte der mittel alterlichen chineschen Philosophie, Geschichte der neuren chinesischen Philosophie,* Hamburg, 1927, 1934, 1938. For a bird's eye view of Chinese philosophy, see Hu Shih's "Religion and Philosophy in Chinese History," *Symposium on Chinese Culture,* ed. Sophia Zen, China Institute of Pacific Relations, Shanghai, 1931, pp. 31-58; Hu Shih, "Chinese Thought," *Asia,* Oct. 1942, pp. 582-584; my chapter "The Story of Chinese Philosophy," *Philosophy, East and West,* ed. C. A. Moore, now in press, Ch. III; and my article "Chinese Philosophy," *The Dictionary of Philosophy,* ed. D. D. Runes, Philosophical Library, 1942, pp. 51-53.

Basic Reading Material (ancient philosophy only)

Fung Yu-lan, *A History of Chinese Philosophy* (1930), Pt. I., tr. D. Bodde, Vetch, Peiping, 1937, Chs. IV-VI, VIII-XII; Hu Shih, *The Development of the Logical Method in Ancient China,* The Oriental Book Co., Shanghai, 1917, pp. 53-130, 149-169; Lin Yutang, *The Wisdom of Confucius,* Modern Library, 1938, Chs. I,III-V, VIII, X, XI; Lao Tzu's *Tao-te Ching,* tr. A. Waley, *The Way and Its Power,* Allen & Unwin, 1935.

Supplementary Reading Material

Ancient philosophy: Confucius and Mencius, tr. James Legge, in *The Chinese Classics* or *The Four Books;* tr. Waley, *The Analects of Confucius;* Lao Tzu, tr. P. Carus, *The Canon of Reason and Virtue,* Open Court, rev., 1927; Mo Tzu, tr. Y. P. Mei, *The Ethical and Political Works of Motse,* Probsthain, 1929, Chs. XV, XXVI,

XXXV; Chuang Tzu, tr. Fung Yu-lan, *Chuang Tzu, with selections from Kuo Hsiang,* Commercial Press, Shanghai, 1931, Chs. I-II; tr. H. A. Giles, *Chuang Tzu,* Kelly & Walsh, Shanghai, 2nd ed., 1926, Ch. XVII; Hsun Tzu, tr. H. H. Dubs, *The Works of Hsuntze,* Probsthain, 1928, Chs. IX, XVII, XIX,

Buddhist philosophy: Consult bibliography in C. H. Hamilton's *Buddhism in India, Ceylon, China and Japan.* Also consult A. B. Keith, *Buddhist Philosophy,* Oxford, 1923, pp. 216-302; E. J. Thomas, *The History of Buddhist Thought,* Knopf, 1933, Chs. XVII, XVIII; and D. T. Suzuki, *Studies in the Lankavatara Sutra,* Routledge, 1930, pp. 239-372. A good book on Chinese Buddhist philosophy is wanting.

Neo-Confucianism: There is no good and comprehensive study of this most important Chinese philosophy of the last millennium. Nor is there comprehensive selection in translation. Among the available works, see Chu Hsi, tr. J. P. Bruce, *The Philosophy of Human Nature by Chu Hsi,* Probsthain, 1922, pp. 3-75, 291-303, 311-384; Bruce, *Chu Hsi and His Masters,* Probsthain, 1923, Chs. V-VII; Wang Yang-ming, tr. F. G. Henke, *The Philosophy of Wang Yang-ming,* Open Court, 1916, pp. 204-217; Wang Tchang-tche, *La philosophie morale de Wang Yang-ming,* Guethner, 1936, Ch. III; P. C. Hsu, *Ethical Realism in Neo-Confucian Thought,* Peiping, 1933, pp. 93-127 & Appendix.

Contemporary: H. H. Dubs, "Recent Chinese Philosophy," *Jl. of Phil.,* XXXV, 13, 1938, pp. 345-355; Han Yu-shan, "Some Tendencies of Contemporary Chinese Philosophy," *ibid.,* XXV, 19, 1928, pp. 505-513; Tseng Yu-hao, *Modern Chinese Legal and Political Philosophy,* Commercial Press, Shanghai, 1930, Ch. II. K. Tsuchida's *Contemporary Thought of Japan and China,* Knopf, 1927, is inadequate. Hu Shih's *The Chinese Renaissance,* University of Chicago, 1934, may be consulted with advantage.

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